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THE PRINCIPLES OF EFFECTIVE RADIO SPEAKING

SHERMAN P. LAWTON
University of Michigan

IMAGINE the surprise of a small rural congregation gathered for church services less than nine years ago to find instead of their black-frocked country preacher in the pulpit a large empty-looking horn. Soon organ music emanated from the horn, punctuated with shrieks and howls and almost drowned out by a loud hissing noise. Then the voices of a choir could be distinguished from the other sounds, and finally a deep-toned minister was heard delivering the word of God out of the horn. A large city church service was being broadcast by radio. Most of that little congregation had never heard better music or a more scholarly sermon in spite of all the imperfections of early broadcasting.

From that time forward the idea of sending music and speeches on the air for the benefit of the general public spread rapidly. People who had things to sell saw in radio a medium for advertising their products. People who were familiar with the technical side of radio broadcasting and receiving saw in the field an opportunity to make large sums of money. Educators and others with a mission or a message thought they had discovered a splendid way to spread their gospel. The general public saw in the future long hours of entertainment at a low cost.

What really germinated the idea of general broadcasting was the fact that a number of amateurs with receiving apparatus had picked up an S. O. S. message from a ship in distress at sea. Before that time the efforts of technicians in the radio-telephonic

field had been exerted toward the end of directing messages. The idea was to use the radio telephone as a means of sending important secret messages in such a way that only those who were supposed to hear the communication could receive it.[1]

From June, 1921 to June, 1922 at least one hundred new transmitting stations sprang up in our country[2]. In Spring, 1923 it was estimated that about six hundred broadcasting stations were in operation in the United States and Canada.[3] Then governments took control of the situation, and on May 1, 1926 there were about five hundred and forty sending stations in the United States.[4] Since that time the number has increased to a little over six hundred.[5]

Interest in reception grew by leaps and bounds. Four years ago there were at least 5,200,000 receiving sets in use on this continent alone[6], and many thousands have been sold since then. One radio corporation which had been producing 2000 loudspeakers per day increased its output to 4000.[7]

The quarterly report of the Radio Corporation of America for the three months preceding September 30, 1928 showed $5,221,-145.00 net profit. For the corresponding quarter one year later, ending September 30, 1929, the report showed a profit of $8,729,-389.00, and a steadily increasing trend of sales.[8] In one city, with

[1] See bibliography for suggestions as to where further facts concerning the history of radio-telephony can be found.

[2] *Scientific American* 126:376-7, June, 1922. The same magazine, 127:68, July, 1922 lists one hundred and eleven limited commercial stations in the United States.

[3] *Ibid*, 130:303.

[4] *Saturday Evening Post*, 198:14-15, May 1, 1926. Waldemar Kaempfert in *Review of Reviews*, 65:395-401, April, 1922 says that at that time there were in existence forty-four private and some two hundred government stations. *Scientific American*, 127:378-9 states that on October 5, 1922 there were five hundred and forty-six broadcasting stations in the United States.

[5] *Official Radio Log*, 1930 edition, All American Service, Chicago, lists a little over six hundred broadcasting stations in the United States.

[6] *Saturday Evening Post*, 198:43-4, June 19, 1926. W. K. in R. of R's, 65:395-401, Apr. 1922 says that there were probably 600,000 receivers in use then.

[7] *Radio Digest*, December, 1929, p. 95.

[8] *Detroit Free Press*, Nov. 15, 1929.

an estimated population of 30,000, one retailer sold approximately three hundred complete receiving sets during 1929, and has begun 1930 averaging at least one complete set each day.[9] Newspapers estimate that from 20,000,000 to 25,000,000 people sometimes listen in to an important event.[10] One broadcasting station has received as many as 50,000 letters from fans concerning one occasion.[11]

It is a natural result of such a situation that speaking over radio has come to be of considerable importance. Three years ago there were at least twelve hundred professional radio announcers in the country,[12] a goodly portion of the total number of people devoted professionally to the speaking arts. The number has increased since that time with the addition of more stations and the increased length of programs. Nearly everyone who has anything to do with public speaking or has achieved prominence in any activity has had, at some time or other, occasion to speak over radio. For these reasons a consideration of the principles of effective radio speaking is valuable.

That the value of a knowledge of the principles of effective radio speaking for workers in the speech field is being realized, is indicated by the fact that at least one large school, New York University, has on its' teaching staff an "Instructor in Radio Speaking,"[14] and other schools are, of course, beginning to offer training in radio speaking along with the regular speech classes; for example, the University of Wisconsin has been installing apparatus for a study of the principle of speaking over radio.[15] Text-

[9] Stofflet Radio Agency, Ann Arbor. At least five more radio sales stores can boast of similar records.

[10] See *Sat. Eve. Post*, 198:43-4, June 19, 1926. J. H. Collins in *Sat. Eve. Post*, 196:10-11, ff., estimates that there were 5,000,000 receiving sets in this country in 1925 and that there were probably 20,000,000 listeners.

[11] *Sat. Eve. Post*, 198:14-15, May 1, 1926.

[12] *Ibid.*

[13] See notes 4 and 5.

[14] Letter from Mr. R. C. Borden, dated Nov. 27, 1929 refers to Vol. XV of the "Modern Eloquence" series, where the title "Instructor in Radio Speaking" appears. Mr. Borden holds that position at New York University.

[15] Letter from Professor H. L. Ewbank, Department of Speech, University of Wisconsin, of date Nov. 15, 1929.

books are beginning to contain chapters on radio speaking.[16] At the last convention of the NATIONAL ASSOCIATION OF TEACHERS OF SPEECH in New York City five of the first speeches delivered concerned "Speech and the Radio."[17] This last fact alone would signify that the growing importance of a knowledge of the principles of effective radio speaking to workers in the speech field is being recognized.

The preparation of the conclusions with regard to the principles of effective radio speaking set down in this paper included a consideration of the important statements, studies and experiments from 1920 to 1930, concerning speaking over radio, as well as the tabulation of answers on questionnaires filled out by radio listeners, for the most part students of speech, specifically for this paper.[18]

In 1926 WJZ circulated 10,000 questionnaires covering all the important phases of broadcasting so that the impressario in making up the programs would know just what the public most desires in the form of radio entertainment. The questionnaire was impersonal. No one was asked to sign his name. More than 4000 were completely answered and returned. The results were then

[16] See, for example Sandford and Yeager, Business and Professional Speaking, Shaw, 1929, Chicago.

[17] Preliminary Announcement, Fourteenth Annual Convention, National Association of Teachers of Speech, Hotel McAlpin, New York City, Dec. 30th, 31st and January 1st, 1930, Acme Printing and Sationery Company, Minneapolis.

[18] These questionnaires were an attempt to find out what principles of delivery resulted in the best reception and what speech content resulted in the greatest satisfaction to radio listeners. For the printing of the questionnaires through the University of Michigan I owe Professor James Milton O'Neill, Head of the U. of M. Speech Department, hearty thanks. For studio cooperation I extend to Mr. W. M. Abbott, announcer and manager for Michigan Night over WJR, Detroit, my sincerest gratitude. Aid in securing listeners to fill out the questionnaires was courteously furnished by Professor Henry Lee Ewbank, Department of Speech, University of Wisconsin; Professor N. J. Weiss, Head of the Speech Department, Albion College; Mr. Rupert Cortright, Department of Speech, Syracuse University; Mr. Clarence Dammon, Department of Speech, Purdue University and Miss Julia Royse, teacher of public speaking, High School, Muskegon Heights, Michigan. To them I offer my deepest appreciation. The results of this issuance of questionnaires can be found in the Appendix on pp. 272-277.

tabulated under the direction of a statistician. Travelogues ranked far ahead in the field of talks. Scientific topics were second with other subjects voted for as follows: politics, health, literary, economics, art, debate, forum and beauty.[19]

However, these results would not always help the prospective radio speaker to decide as to the subject on which he should speak. Subjects for speeches to be delivered over radio should be chosen wth a view, first, to widest possible interest appeal (See App. 1-4), second, fertility of human interest materials (B and C), and third, characteristics which permit of short treatment (F).

Under ordinary circumstances if a speaker is making an uninteresting talk face to face with an audience, common courtesy will hold the listeners in their seats until he is finished. This is not true when the speaker addresses his audience, tongue to ear.[20]

[19] Other results were: Classical music was 33 percent more popular than jazz; orchestral music proved to be the most popular with bands second, then symphonies, violin, organ, piano, cello, saxaphone, cornet. In the instrumental group, quartettes were voted half as popular as trios, but twice as much in favor as duos. The sports ranked for popularity in the United States as follows: baseball, football, boxing, horse-racing. Very few votes were cast in Canada for baseball and fewer for football. The most popular sports in Canada were hockey and horse-racing. News was 25 percent more popular than time signals or sports which were second and third, respectively. National and local news ranked about equal in importance. Then came stock reports, financial reports, road conditions, agricultural information and cotton reports. Men proved to be more popular than women for announcers. Church services were moderately in favor. General complaints were: Broadcasters do not give call letters often enough; there are too long pauses between selections; announcers talk too fast; announcers should stop trying to be funny; announcers should be brief and eliminate broadcasting of lengthy descriptions of selections or the life story of the composer. Chain programs were better liked. *Radio Broadcast* 9:135-6, June, 1929.

[20] The difference between platform and radio speaking, as regards the effect of the speaker on the audience is illustrated by the two following notations. J. H. C., in *Sat. Eve. Post*, 196:10-11ff., says "All of Bryan's personality counted for nothing over the radio. His radio speaking was a failure because he could reach his audience through only one sense." It has been claimed by a number of newspapers that if the speaking in the last presidential campaign had not been over radio, Al Smith might have won the election. Smith melts his audiences when he addresses them face to face, whereas Hoover, depending not so much on platform bombastry as Smith is ordinarily accustomed to, makes a better impression over the radio. See note 29.

It is very simple for a radio listener to turn the dial on his set and get something which pleases his fancy more if he is not enjoying a speech.

It should be remembered that the vibrations of instruments and of the human voice are never made more beautiful by transmission through the air. This being true, perhaps one of the radio's greatest virtues is that it can be turned off. For this reason a radio speaker must be constantly on his guard to hold the interest of his invisible hearers. Consideration of what the audience wants, of the things that people like to hear, should be the prime concern of the prospective speaker over radio.

Mr. Corbett-Smith, in complaining that the British Broadcasting Company is too "high-brow," stated "When one sets out to give a radio entertainment, whether music, poetry, drama, speech, variety, or anything else, he should visualize not only the few who are already educated in some measure to appreciate the best in the various forms of art, but the vast many of our people.... who pretend impatiently to disdain.... them. Every single radio program should be so built and presented as to form a perfect fusion of art, education, and popular entertainment. That type of mind which is usually associated with scholastic education is hopelessly out of place in radio work.... It is the showman.... who is needed.... the man with the widest range of interests, with an acute sense of the inter-relationship of every kind of activity. Radio entertainment demands not the depth of the scholar, but the breadth of the sensitive man of the world.'"[21]

[21] An interesting viewpoint contrary to that of Mr. Corbett-Smith is taken by Edgar Burrill White in *Radio Broadcast* 2:54-5, Aug. 1922. Mr. White believes that the public really wants the best in literature over radio. Many believe also that the radio should be the means of educating the uncultured to the "better" things in the various arts. This theory, however, is not held to by the most successful stations. Witness the amazing popularity of Amos 'n' Andy and in comparison consider how few would listen for long to a reading of one of the masters of literature. See *Radio Broadcast* 5:172, 334, 391. Note the fact that Mr. White expressed his opinion during the infancy of broadcasting, and that Mr. Corbett-Smith made his statement after five more years of experience with the microphone. The prospective radio speaker should bear in mind then that an audience is interested in breadth, not depth, and is attracted by showmanship rather than scholastic display. These facts should be given

It is with consideration of the audience in mind[22] that studio managers, realizing that their jobs and the lives and values of their respective organizations depend on holding their listeners, give careful attention to the letters they receive from fans.[23] The speaker should give to the things in which people are interested the same heed that broadcasting stations give in planning their programs.

It should be borne in mind that radio speeches are none too popular. For instances, the *London Daily Mail* conducted a ballot of the preferences of the listening public and received 1,285,083 replies. The results were as follows:[24]

Variety and concert parties	238,489	
Light orchestral music	179,153	
Military bands	154,613	
Dance music	134,027	
Talks: topical, sport news	114,571	(8.8%)
Symphony concerts	78,781	
Solos: vocal and instrumental	72,658	
Opera and oratorio	60,983	
Outside broadcasts	51,755	
Short plays and sketches	49,857	(3.1%)
Talks: scientific and informative	30,919	(2.4%)
Glees, choruses, sea chanties	30,445	
Chamber music	27,467	
Revues	27,059	
Long plays	17,576	(1.3%)
Readings and recitations	2,717	(.21%)
Other votes	4,013	
	1,285,083	

These figures, of course, indicate general preferences, and do not at all mean that no more than 2.4% of the voting Londoners

consideration during the construction of a speech for radio use. See, however, the *Quarterly Review* 242:408-14, J. C. W. Reith.

[22] This same consideration of the audience demands that the speaker should not offend the prejudices of any faction of the public. See *Independent* 114:583-5, My., 23, 1925.

[23] G. McNamee, "You're On the Air," pp. 172-89; Sunset 55:22-3, J. H. Jackson; *Popular Mechanics*, 42:131-6 says "Artists and stations value unfavorable criticisms . . . for many of them are constructive and based on facts."

[24] *Radio Broadcast* 11:161, July, 1927.

would listen to, say a scientific talk, if they tuned in on it accidentally, provided it were interesting.

In our own country KYW, WDAP, and WJAZ, all of Chicago, in trying to find out what kind of programs were best enjoyed, for twelve days sent out the same question asking popularity votes regarding the numbers which were put on the air during that time. They received a total of 263,410 pieces of mail in reply. As it was estimated that not more than one in fifty listeners replied, the number indicated an audience of at least 13,000,000 persons. Results were: popular music, 29 percent of the votes; classical music, 24 percent; jazz, 18 percent; band music, 3 percent; saxaphone, less than 1 percent; leaving 25.5 percent for everything else including the speeches which were on the programs. However, notice in the Appendix that the questionnaires received in connection with this study indicate that if a speaker uses the proper sort of a subject and the right kind of material for development of his speech, and has a good delivery people will listen to him.[25].

Nevertheless, the fact remains that speeches over radio are not overly popular, to say the least, and the radio speaker must try to visualize the sort of people to whom he is talking in order to find what interests them.[26]

In the studio of KTCL (Cal.) there is a picture of a workingman's wife with her babies. The reading which accompanies the sign says "This is Mrs. Blank, living at 1000 Blank Street." Then follows a short description of who she is, what she is, and what she likes; who her husband is, what he does and what he likes. The purpose of the picture is to keep the announcers and performers reminded of the type of audiences they have.[27] Bor-

[25] H. V. KALTENBORN, Associate Editor of the Brooklyn *Eagle* and broadcaster of political events says in Independent 114:583-5, My 23, 1925, "Any radio speaker with a message and a good voice . . . medium pitch, good resonance, and clear enunciation can develop a huge following by regular 'appearances' on the air." On page 129 of his book, Graham McNamee says "With them (the radio audience) only two things count—the message and the vocal delivery."

[26] An unnamed announcer is quoted in *Radio Broadcast*, 12:366, March 1928 as saying "The dullest thing that comes over the air is a speech. The minute one starts here I can just feel the people tuning out." See Rad. Br's comments, 7:357.

[27] *Radio Broadcast* 9:238, July, '26.

den[28] says, "For maximum effectiveness a preponderance of human interest material should be employed in the development of a radio speech." Accepting this statement as sound, the question, the old, old question of what human interest material is, arises. For purposes of this paper human interest material is considered as involving Phillips' factors of interestingness, the animate, the vital, the familiar, the unusual, the uncertain, the antagonistic, and the concrete and also involving direct or veiled appeals to the impelling motives. It should not matter what one of the many classifications of impelling motives the speaker uses as his basis as long as he makes his appeal to fundamental human interests. Of course, it is not often possible, or for that matter wise, to make every possible type of appeal in any given speech, but subjects should be chosen with a view to opportunity for the use of as many fundamental appeals as possible, and as much as possible of this sort of material should be employed in the development of the speech. In other words all of the commonly accepted principles of employing interest factors carry over into radio speaking.[29] However, it should be borne in mind that more intense use of human interest factors is necessary.[30] See Appendix 5-10.

[28] R. C. BORDEN, in "Modern Eloquence," Vol. XV. Mr. Borden functioned with his associate, Professor Busse, as chairman of a National Voice Technique Committee, which made a rather exhaustive analysis of the requirements of effective radio speaking. The results of the study can be found in Mr. Borden's article in Modern Eloquence. The conclusions reached by his committee can be summarized as follows: For maximum effectiveness the radio speaker should talk at an average rate of approximately 165 words per minute. (See paragraph on Rate.) He should strive for an average pitch of low middle range. He should get fairly close to the microphone and talk quietly. He should enunciate distinctly but not pedantically. He should seek to visualize his audience as he speaks. The length of his speech should seldom exceed ten minutes, never fifteen. One central idea should be given in a single speech. The radio speaker can expect no more than a smile for his humor. His vocabulary should conform to the low common denominator of intellectual comprehension. Breathed consonants should be avoided. Simplicity is the paramount test of sentence structure. The radio speaker should inject into his delivery marked pitch, rate and volume variations, taking care that these variations are not manneristic or uninterpretative.

[29] Although Borden says "Most of the principles of effective platform speaking carry over as principles of effective radio speaking," certain differences must be noted, in order to warn prospective radio speakers who

An interesting suggestion has been made that some metropolitan station schedule a series of weekly ten-minute talks, promising a new speaker, an authority on his subject, each week. Then as speakers the program manager should obtain head-waiters, bakers, subway guards, mounted policemen, customs inspectors, window demonstrators, flag-pole painters, information clerks, pan-handlers, bell-hops, ribbon clerks, bootleggers, or any others of the numerous people whose work gives them a unique slant on humanity. Naturally, it would first be necessary for the director of the program to interview the prospective speakers to ascertain whether or not their garrulities would be interesting. He could question them in the course of an hour's interview about entertaining and interesting sidelights of their trade. During the course of the conversation he could keep a topical record of the interesting things which came up. Then the speaker could be furnished with this brief list of reminders probably only five or ten sentences long and told to go ahead and talk until his ten minutes were up.[31]

If there is one vital rule with regard to the construction of a radio speech it is this: Remember that you have no other means than the spoken sentence to convey your thoughts to your radio hearer.

The accepted rule with regard to the proper length for radio speeches is that for maximum effectiveness they should seldom exceed ten minutes.[28] Supposedly the only exceptions to this rule are in cases in which the speakers are so well known that they can afford to take liberties with the time of their audiences.[32] See

on the platform have depended a great deal on bombast. Consider, for example, the statement of Professor J. Morecroft, President of the Institute of Radio Engineers, "Radio oratory is obviously much different from oratory on the platform. Personality will count for nothing as far as the radio audience is concerned. Ill-built sentences, expressing weak ideas cannot succeed without the aid of forensic gesticulation. The flowery nonsense and rhetorical excursions of the soap-box spell-binder is probably a thing of the past if a microphone is being used. The radio listener, curled comfortably in his favorite chair, is likely to criticize the vituperations of the vote-pleader very seriously. Woe be to the candidate who depends for public favor on the wild rantings and tearings of the hair." *Radio Broadcast*, 5:399.

[30] See J. H. J., in Sunset, 55:22-3.

[31] *Radio Broadcast* 12:307, Feb. 19, 1928.

[32] For example, presidential campaign speeches and important presi-

Appendix 46. However, questionnaires results (Appendix 15-17) seem to justify the following statement: A radio speaker should talk only so long as he is talking interestingly and well on a subject particularly calculated to hold attention. This may in some cases exceed ten or fifteen minutes.

There are two important things to remember about the words used in an effective radio speech (Appendix 18-22). First, for maximum effectiveness the choice of words should conform to the low common denominator of intellectual comprehension.[28] The radio speaker should assume the newspaper by-word that the intelligence of the general public is equivalent to that of a twelve-year-old child. The words he uses should be comprehensible to such a child. Second, breathed consonants should be avoided when a speech for radio delivery is being prepared. The letter "s," for example, never carries well over the air. Breathed consonants can be reduced to a minimum by vocabulary substitution such as "crime" for "lawlessness" and "twine" for "string." The best broadcasting station and the finest receiving set in the world cannot as yet reproduce the consonant combination "th" to perfection. Examples of vocabulary substitution here are "gratitude" for "thanks" and "annoy" for "bother."

An interesting story is told of an announcer of a New York station who, while broadcasting an annual radio show convention at the Hotel Pennsylvania told his audience "The grand ball-room is all filled with booths," and that innocent word came out on the air as "booze," an altogether unintended indictment, or compliment.[33]

Perhaps the most difficult thing to secure over radio is a laugh from the audience. See Appendix 23-4. Humor should never be deliberately incorporated in a speech[34] unless the speaker is listed on the program as a humorist.[35] Even in such a case the best the entertainer can hope for is a quiet smile.[28] Funny songs,

dential messages often extend to considerable length. People will listen to what persons in high places have to say because of their prominent positions, if for no other reason.

[33] *Radio Br.* 7:357, Jl. 1925.

[34] McNAMEE, p. 65. *Ibid.*

[35] A. Rizo, an announcer of WGR says "Let the performers do the performing." Letters to him indicate that the public prefers that announcers should not try to be funny.

wit and repartee get by partly on the strength of the music. The audience is not a crowd. It has no group mind. People seldom laugh outright at anything unless they are an integer of a group which as a whole is greatly amused. Billy B. Van says[36] "The hardest thing for the comedian to bear in mind when talking over radio is that the audience is looking at him through ears and that he must appeal to them through their mental eyes. In telling a joke there is always the danger that the point won't be clearly emphasized. Perhaps the last sentence which usually contains the pith of the story will be distorted and then the listeners will wait in vain for the humor. They will have endured the long-winded explanation which led up to the climax and then missed the whole point. As a result the radio comedian tells his story much more distinctly than he would on the stage. He cannot allow himself rambling from the main point.... and yet he must not be too abrupt, too direct. Radio, however, has clarified the jokes of the professional merry-maker. Where a slight innuendo, a double meaning that was slightly risque could be used on the stage, it is absolutely taboo on the air. The comedian is considerably hampered by his diverse audience. He cannot tell stories that hold up a class, a race or a religion to ridicule. He cannot make a pun that is too complicated. He cannot jest of things which are not familiar to the everyday life of his hearers."

The subdued, formal, almost depressing atmosphere of the broadcasting studio demands the utmost consideration on the part of each performer for the others. Walking about the room,[37] tap-

[36] *Radio Broadcast* 9:133-4, Je., '26. Joe Cook says: "So far I have told the same stories over the microphone that I tell over the footlights. In time I believe there will be specialized humorists who will write material especially for the radio. (Amos 'n' Andy do now, as well as others). This material will probably be much cleverer and more subtle than the line of patter in use today, for when you appeal strictly to the ears and lack even the prop of personality you must create proportionately brighter quips to hold your audience.... On the stage I can juggle with balls, bottles, ladders, musical instruments. On radio I can juggle only with my voice." *Ibid.*

[37] J. H. JACKSON in *Sunset* 55:22-3ff., S. 1925. Mr. Jackson also remarks "Near the microphone the simple act of rubbing a careless finger over, say, half a day's growth of beard is likely to produce a splendid imitation of rip-roaring static in several hundred thousand loud-speakers. The slightest clearing of your throat is magnified into an ominous growl,

ping the toe to music, moving a chair, crackling paper, or even whispering "sh—" is extremely bad etiquette.[38] If a person must sneeze or cough he should turn his back, or better yet, turn and cough at the floor.[39] Announcers and studio managers take every precaution against extraneous noises of all kinds.[38] It is expected that the performer shall conform to the studio atmosphere.

If a speaker has bad speech habits, such as smacking his lips while speaking,[37] breathing heavily through the nose (Appendix 25-26), gasping for breath at the ends of sentences,[40] rustling his manuscript in his hand,[37] or even clicking his thumb-nail against his middle finger[37] he should be careful to train himself out of such habits before he attempts to speak over radio.

It is surprising the interference which unnecessary noises in the studio can cause. TFI, *The Tribune*, Los Angeles, once received an appeal by foreign mail from Cuba, "For heavens' sake, turn off that faucet; I hear that dripping of water every time you put on a program and I tune in." An examination of the studio revealed a leaky water tap.[41]

Major John Flanning, director of a WNAC station tells of a professional reader who had started a brisk program of selections by reading "Gunga Din." He was a man of wide experience before audiences but the microphone seemed to embarrass him. Suddenly he forgot his lines. A minute or two passed. Then he began to sweat. The switch was still in and unexpectedly he blurted out "Gosh, I'm licked." He told it to the whole world and everyone who happened to be listening in heard him.[42] Although this microphone "stage-fright" is common, making it difficult for the

while a sneeze becomes a monstrous hybrid blast, somewhere between a hyena howl and a Kansas tornado."

[38] *Sat. Eve. Post*, 198:14-15, May 8, 1926.

[39] Same as 37. Also see *Radio Broadcast* 5:222, July, 1924: "A cough which is not especially unpleasant when heard from the lecture platform sounds like a hippopotamus sneeze over radio. A cough should never be permitted until the microphone has been short-circuited."

[40] Current Opinion 73:68, July, 1922.

[41] *Atlantic Monthly*, 132:368ff., S. 1923.

[42] *Popular Mechanics*, 42:131-136. For another amusing story of a first broadcasting see *Outlook* 132:529-30, Nov. 22, 1922. Jackson (note 37) tells about the "scare" a mike throws into one. So does Carpenter (note 41). In fact nearly every magazine article concerning radio "premieres" makes mention of "mike-fright."

radio speaker to realize that he is talking to anything but a piece of metal, it has been found that visualization of the audience on the part of the speaker is an aid to maximum effectiveness of delivery of a radio speech.[43] Appendix 27-31.

Almost every broadcasting station asks the prospective speaker for a copy of his speech before the program and prefers that the manuscripts be used during the delivery of the speech.[44] However, the script should be used only as a guide. For maximum effectiveness a radio speaker will not read his speech. (Appendix 32). It is a rare reader who can give sufficient animation to his delivery when reading what he is saying.[45]

Animated delivery can be aided by meaningful variations in pitch, volume, and rate.[46] Borden[47] calls these variations the "Variety Stimuli." Extreme care should be taken that these variations should not become manneristic or uninterpretative.

Sing-songness, flatness of tone, raising the voice at the ends of all sentences, and similar mannerisms which result in monotonous delivery mark the failure of the radio speaker. Appendix 33-35. He cannot hope to hold his audience without liveliness of delivery any more than without liveliness of theme and content material.[48]

[43] "Voice personality" is the term applied by Geo. H. Doran, quoted in *Lit. Dig.* 76:29, Ja. 20, '23, as applied to the voice with vitality and animation which helps create a sense of personal contact on the part of the audience with the speaker. McNamee, 126-9 gives a detailed statement of the importance of a good singing voice in broadcasting.

[44] For example Austin C. Lescaboura, *Scientific Am.* 126:376-7, June, 1922; Program Director L. J. Johnson of WLW in *Rad. Br.* 10:269, Jan. 1927; see *Sat. Eve. Post*, 196:10-11ff.

[45] *Radio Broadcast* objects to Johnson's advice: "There is little enough excuse for radio speeches, anyway, and what small justification there is, is that the spoken word may be more interesting than the written one. In fact, in this day of cheap printing there is little excuse for speechifying. We concede just two situations in which a speech is more logically called for than a printed message: first, when the audience is made up of illiterates; second, when the speaker is endowed with the ability to put his stuff across better orally than he can in writing. Not one speaker in a thousand can, while reading a speech, convey the impression that he is thinking about it. A good speech is oral thinking or verbal thinking."

[46] See note 28.

[47] *Ibid.*

[48] See paragraphs on Visualization and Development under Composition of the Radio Speech.

An additional caution should be made that variations should not be too sudden.[49] A radio speaker, talking at an average conversational volume[28] should stand about a foot and a half[50] away from the microphone and directly in front of it.[51] Speakers with higher pitched voices should stand a little farther away from the "mike" than those whose voices are more deeply pitched.[52]

The problem of how loudly a person should talk over the radio is not so serious a problem as it once was inasmuch as tones of greater volume can be faded down to good transmission volume,[53] while more quiet tones can be magnified.[45] However it is desirable that the radio speaker should talk with medium conversational volume (Appendix 36) for two reasons: First, the radio technician at the mixing board then has a standardized basis from which to manipulate his magnifications and eliminations.

[49] "The explosive voice, which throws quick staccato accents at the listeners is poorly adapted to the microphone. The violent emphasis on one or two words paralyzes the microphone and the listener gets the effect of a series of grunts." *Rad. Br.* 5:222, Jl. 1924. In Independent, 114: 583-5, H. V. K. says that a sudden increase in volume results on the receiving end as just "Blah."

[50] Borden (note 28) says "fairly close," Johnson, (note 44), two feet, Lescaboura (note 44), three inches, etc. See also Sandford and Yeager, chapter on Radio Speaking, "Business and Professional Speaking." Experiments at the local studio of WJR would indicate an average of about one and one-half feet to be the most effective.

[51] There are three general types of microphones. Class 1: Horns; diaphragms with one side closed. This is the most commonly used type of microphone, and is the standard studio "mike." Class 2: Flat diaphragms, open on both sides. Class 3: Conical diaphragms, open on both sides. With type 1 microphone the volume of reproduction falls off when input sound is moved from front to back, with definite minimums at about 90 to 120 degrees from the face. Type 2: Equal front and rear intensities. Very sharp and low minimums at 90 degrees. Type 3: Definite minimums at about 90 to 115 degrees with approximately equal front and rear intensities. Type 1 is about half as sensitive in rear as in front and the minimum of sensitivity lies a little toward the rear of the side. A cello placed at an angle of 5 degrees yields about 75 per cent as great a volume of reproduction as when in front. See experiments told of by B. E. Meissner, *Radio Br.*, 9:394-7. The facts noted above indicate the necessity of talking directly into the microphone regardless of the type.

[52] Johnson, note 44. Higher pitched instruments should likewise be placed farther away from the microphone than lower pitched.

[53] *Sat. Eve. Post*, 196:10-11ff. May 17, 1924.

[54] G. McNamee, p. 63.

Secondly, such a volume is not only easier for the speaker, but sounds more natural when reproduced.

A medium low pitch should be striven for in radio speaking for maximum effectiveness.[54] People with high-pitched voices cannot hope to be successful radio speakers.[55] Likewise, people whose voices are pitched too low meet with disfavor. Appendix 37-39. An average baritone voice produces the best results. It must be borne in mind that whatever the pitch, trueness of tone is essential.

A brisk rate of delivery, provided the enunciation is good is more likely to hold the attention of a radio listener than a more deliberate speed. Borden[28] gives the proper rate as 165 words per minute, Jackson[37] claims that 100 words per minute is best. McNamee[56] says that the rate should be "a little slower than in ordinary conversation." Johnson[44] says that one page of typewritten copy, double spaced, should take about three minutes to read. The experiments in connection with this paper (Appendix 40-41) indicate that from 120 to 128 words per minute is often too slow. Brigance[57] claims that the best average rate for the average voice in platform speaking is from 115 to 135 words per minute and seems to agree with the magazine *Time* that a fluent speaker does well to "get out 150 words a minute." The only blanket rule which can justifiably be made with regard to the rate of delivery in radio speaking is that a speaker should talk as briskly as is consistent with good enunciation and proper employment of the Variety Stimuli. This will undoubtedly vary in individual cases, but should lie somewhere near 135 or 140 words per minute.

J. Andrew White, on Sunday, Sept. 18, 1927, announcing for the Columbia Broadcasting system was understood to say "The Uproar, by Deems Taylor." What he really said, of course, was the "Opera." Everyone's experience has been full of similar misunderstandings of what has been said over radio. When we under-

[55] See note 28. For a discussion of women's voices over radio, see *Radio Broadcast* 12:307ff., Feb. 1928. On page 391 of that volume Corley W. Kirby, at that time an announcer for WWJ is quoted as complaining that "women's voices . . . have an offensive nasal quality . . . their voices are pitched too high . . . they need body to their voices." Mr. W. M. Abbott, a WJR announcer, says "I always hesitate to put women on the air because their voices are too high."

[56] p. 127.

[57] Q. J. of Speech Ed., Vol. XII, Number 4, Nov., 1926, pp. 337ff.

stand an announcer to say: "This high-grade firm was foundered"[58] or give "Alsatia" as the name of a piece of music instead of "I'll Say She Does"[59] we begin to realize the importance of distinct enunciation in radio speaking.

The importance of speaking distinctly over radio cannot be over-emphasized.[59] The only qualification to the rule "Speak distinctly" is to guard against enunciating pedantically. Appendix 42-44.

The sound which enters the microphone encounters enough interference before it vibrates out of the loud-speaker to make good reception uncertain without being mumbled before it begins its journey through the air.[60] Sound undergoes numerous conversions from one type of vibration to another: microphone, audio-transformer, vacuum tube, loud-speaker.[61] Radio technicians are making rapid progress toward the ideal of perfect reception,[62] but

[58] *Rad. Br.* 12:141, Dec. 1927.

[59] *Rad. Br.* 12:307, F. 1928.

[60] *Radio Broadcast* 9:394-7, S. 1926. L. E. Whittemore, then of the U. S. Bureau of Standards points out, in *Rad. Br.* 1:101ff. some objects that distort radio waves.

[61] Rather simple explanations of the technical side of broadcasting can be found in brief form in the *Quarterly Review*, 242:398-414 and *Atlantic Monthly*, 132:368-8, S. 1923. A paper called the "Elements of Radio" can be obtained for five cents by writing the Department of Interior at Washington.

[62] Dr. Culver of Carleton College completed last November a microphone on which he had been working for five years which eliminates the sound of condensation and the carbon hiss. The new instrument proved successful in a broadcasting test on Nov. 28, 1929. Northfield, (Minnesota) *News*, Nov. 30, 1929. There are two general classes of reproduction distortion. First, those due to overall frequency characteristics of the system which are not flat. That is, the ratio of reproduced intensity to original intensity of sounds is not the same for all frequencies. Second, those due to overall amplitude which is not rectilinear. That is, the ratio of reproduced intensity of all sounds is not the same for all frequencies. Assuming that both frequency flatness and rectilinear amplitude are obtained, there may be distortion due to loss of certain sounds caused by insufficient sensitivity. This will result in the omission of weak tones. There may also be distortion due to the introduction of extraneous sounds, caused for example, by the carbon hiss in microphones, commutator ripple in the transmitter, plat-current generator, tube noises, static, interference, etc.

what they can do is limited. It is up to the speaker to assist good reception by good enunciation.

An example of pedantry in enunciation (undue emphasis on trivial details) is given in the following quotation[63]: "Announcers have heard so much about clarity of speech and have had so many complaints concerning this that many of them are leaning over backwards in these matters, if indeed, anyone can lean verbally backward .... Any number of these gentry, describing the evening's musical progression of an orchestra stress their words, particularly *orchestra*. It is almost invariably given as *orCHEStra*. Webster and other crystallizations of good verbal usage demand that the accent be placed on the first syllable."

An announcer from WGBS, through carelessness, in describing a boat departure said "As the last siren has blown, I see Mr. Untermeyer leaning over the rail of this ship—and now—the last line which holds this magnificent liar—(liner) to the pier is parted."[64] Such examples of carelessness can be heard daily over radio.

One of the worst forms of such carelessness is mispronunciation. Radio listeners are very quick to notice errors in prounciation. Appendix 45. The good radio speaker is careful to pronounce all of his words correctly.[28] Some announcers of the Radio Corporation of America stations insist on calling their company the "Radio Corporation of AmURica," which is wholly out of place in the usually high quality of announcing from those stations. And in passing, it should be noted that the deep-toned announcers of WGY have not yet discovered that the name of their company is the General *E*-lectric, not the General *A*-lectric. Small matters these, perhaps, but mispronounciation and careless pronunciation can work wonders in spoiling an otherwise perfect program.[65]

APPENDIX

RESULTS OF QUESTIONNAIRE

Five hundred questionnaires were issued to students of speech in connection with this study. These students were asked to listen

[63] *Radio Broadcast*, 7;638.
[64] *Ibid.*
[65] *Ibid.*

to speeches delivered over radio and answer the following questions concerning them:

1. Could you easily understand everything the speaker said? If not, what do you think was the reason? Poor enunciation. He talked too fast. Static. Other reasons.

2. Was the speaker interesting? If not, why not? I wasn't interested in the subject. He talked too slowly. He was monotonous. He was bookish. Other reasons.

3. If you were not filling out this questionnaire, would you have listened to the entire speech or would you have tuned out for something else?

4. Did you notice any mispronounced words? If so, what were they?

5. Was the speaker's voice pleasing to you? If not, was it too nasal? raspy? shrill? deep? Other reasons.

6. Did you notice any manneristic or uninterpretative variations in pitch? volume? rate of delivery?

7. Did you feel an intimate contact with the speaker?

8. Did his humor, if any, amuse you? Much?

9. Did he use any words of which you didn't know the meaning?

10. Were any sentences so involved that you were confused as to what had been said?

11. Did he talk too long for you? How long?

12. What was the central idea of the speech? (Do not answer this unless you are absolutely sure.)

The questionnaire was constructed with the Borden study[26] in mind, each question being pertinent to one or more of his conclusions. Four hundred and ten completed questionnaires were returned. As to the tabulation and correlation of the results, I have noted only such observations as seemed most helpful in illustration of the principles of effective radio speaking which I have set down in this paper.

RESULTS

ELEMENTS IN THE COMPOSITION OF A RADIO SPEECH

Choice of subject.

1. 121 listeners signified that they would not have listened to the entire speech if they had not been filling out the questionnaires.

Of these, 98 were in cases in which disinterest in the subject had been denoted.

2. In 12 cases the listeners indicated that they would have listened to the entire speech solely because the subject was to their liking, even though the topic was not interestingly handled.

3. In 15 cases the listeners indicated that they would have listened to the entire speech solely because of the interestingness of the subject, even though the delivery was bad.

4. In 8 cases the listeners indicated that they would have tuned out the speech for something else, even though the delivery was good and the material interestingly handled, because they were not interested in the subject.

Development (Use of Human Interest Material)

5. In 45 cases the material would have held the listeners even though the delivery was bad.

6. In 16 cases the material would have held the listeners even though the subject was not interesting to them.

7. That the good use of human interest material was received well is indicated by unasked-for favorable comments on "vivid colorful pictures," "interesting stories," etc.

8. Attempts to apear scholarly, or artificiality, due to "bookishness" of material was sensed and disliked in 8 cases.

9. Bookishness, or lack of human interest material was noted and disliked in 24 cases.

10. The use of more than a few statistics met with disfavor in 5 cases.

Unity

11. In 239 cases out of the 410 the listeners attempted to indicate the central ideas of the speeches. In every one of these 239, the listeners indicated either interest in the speeches or that they would have listened to the entire speech if they had not been filling out the questionnaires. 42 of these would not have listened.

12. Of the 171 remaining cases only 92 said that they would have listened. 79 would not have listened.

Sentence Structure

13. 3 listeners complained structures were so involved that they could not easily comprehend the meanings. These complaints were in cases that the listeners had indicated that they would have tuned out the speeches for something else.

14. 4 unasked-for favorable comments were received on the use of simple, easily comprehended sentences.

Speech Length

15. 135 questionnaires contained complaints of various natures, having to do with subjects, material and deliveries. Of these 117 contained the notation that the speech concerned was too long.

16. No questionnaire which had no complaints to make indicated that the speech concerned was too long for the listener.

17. 7 listeners claimed that they were so interested in speeches because of interesting subjects, wise choices of material and animated deliveries that the speeches were not long enough for them, although 3 of the speeches were over half an hour in length.

Vocabulary

18. In 6 cases words of which the hearers did not know the meanings were used. In these cases the hearers noted that they were not interested in the speech.

19. Four listeners made unasked-for favorable comments when speakers used only words easily understood.

20. Four questionnaires indicated that some people dislike a speech filled with too simple words, but prefer words that they can "sink their teeth into" provided those words are not unknown to the listeners. (Ex. "He used too much 'baby talk'." "He had a splendid, full-sounding vocabulary.")

21. Noticeable repetition of the same word annoyed radio listeners in 3 cases.

22. The use of profanity received unfavorable comments from 4 people who filled out questionnaires.

Humor

23. 11 of the 20 questionnaires concerning speeches which contained humor indicated that the listeners were not much amused.

24. In every case in which the listeners liked the humor they heard they made some remark that the speaker was "very clever," "witty," etc. This fact might tend to show that unless humor over radio is so good that it is worthy of comment it is not very successful as a producer of smiles.

ELEMENTS IN THE DELIVERY OF A RADIO SPEECH

Extraneous Noises While Speaking

25. 4 people who filled out questionnaires remarked that they could hear the speakers breathe heavily.

26. 2 listeners complained that speakers cleared their throats while speaking.

Animation—Intimate Contact

27. Of the 275 questionnaires which contained no complaints as to the speaker's delivery, subject, or material, 165 stated that the listener had felt an intimate contact with the speaker. 24 indicated no intimate contact and 86 did not show one way or the other.

28. On the 95 questionnaires which contained complaints about dullness of material, 93 had no intimate contact indicated.

29. Of the 106 questionnaires which contained complaints as to delivery 86 checked no intimate contact. Of the remaining 20, 14 did not indicate whether or not an intimate contact was sensed.

30. Of the 179 questionnaires which definitely checked intimate contact none showed that the listener would have tuned out the speech if he had not been filling out the questionnaire.

31. Every listener who felt an intimate contact checked interest in the speech.

Animation—Manuscripts

32. The questionnaires contained 22 complaints that speeches sounded as if read, that speakers were "recitative," etc.

Animation—Variety Stimuli

33. Sing-songness, raising the voice at the ends of sentences, and uneveness of rate, too even rates, and similar manneristic and uninterpretative pitch and rate variations were noticed with disapproval in 28 cases by radio listeners.

34. Manneristic and uninterpretative volume variations were noticed with disapproval in 12 cases. Examples are the voice "fading away at the ends of sentences" and "shouting unimportant words at regular intervals."

35. Too long pauses between words was noted in 6 cases.

Volume

36. Four questionnaires indicated that weak-sounding voices were disliked.

Pitch

37. Voices which were pitched too high were disliked in 23 cases.

38. Voices which were pitched too low were disliked in 12 cases.

39. 8 unasked for favorable comments were made concerning well-pitched and well-modulated voices with unusual vitality.

Rate

40. The questionnaires showed 34 instances in which speakers talked too rapidly to be understood.

41. The questionnaires showed 12 instances in which the speakers talked too slowly to be interesting. 11 of these questionnaires concerned three speeches over WJR, of which speeches the rates of delivery were 120, 124 and 128 words per minute.

Enunciation

42. Slovenly enunciation was, in 28 instances the cause of difficulty on the part of listeners in understanding speakers.

43. Of these cases only two were so extreme that whole thoughts were lost to listeners. In these cases the hearers indicated that they would not have listened to the entire speech if they had not been filling out questionnaires.

Pronunciation

44. Wrongly pronounced words were detected in 14 cases.

45. Pedantic enunciation, such as undue stress of syllables, and carelessnesses, such as leaving "g's" off the ends of words, saying "fur" for "for" and similar miscellaneous examples of bad pronunciation and enunciation were noted in 12 cases.

Miscellaneous Results

46. 3 listeners indicated that they would have listened to the ends of speeches, not because the speaker was effective, but because he was a person of reputation or rank.

47. 6 speakers were scored on charges of affectation and 2 on the charge of dictatorialism. These criticisms occurred in connection with "bookishness" of material. See 8.

Before I proceed to the major interest of this paper, I wish to say a word concerning the personality factor so conspicuously a part of the speech case. For some unknown reason speech defects are often employed as an object of cruel ridicule on the stage. This is a picture of inconsistency, when one considers that we do not ridicule the man with a crutch and surely the theatre would not have the temerity to present for amusement one who was afflicted with blindness. The highly developed competitive economic machinery of life soon enmeshes in its cogs those afflicted and they are forced to isolate themselves as a defensive reaction. Thus they draw away from the group and become seriously introverted; this is the death-blow to personality. Even the child, the very young child, obviously enjoys a relief from speech affliction. There is established a new personal equation in which the individual, finding himself unweighted by personal handicap, reveals the "freed personality"—the adoption of an expected and natural ego-centricity, a new urge for activity, resultant eagerness compensatory to the long forced passivity.

In regard to the theories of stammering it is interesting but understandable that the many theories which have been promulgated are either partitive or grossly in error and that several approaches which seem the most obvious have been entirely neglected. To Kustner in 1716 we are indebted for the first well presented theory which dealt with the weakness of the speech mechanism. The next approach which could claim any scientific coloring appeared as the work of Kussmaul more than one hundred and fifty years later with an explanation in terms of the spastic neurosis of coordination. Coë hit upon the idea of reduced pressure in pulmonary air. As was to be expected there then appeared in the literature, unsatisfactory and relatively unscientific theories such as that of imitation, and heredity; psycho-neurosis of Ssikorski; fear neurosis; erroneous doctrines of dextrosinistrality; the inferiority complex notion of Adler and the repressed complexes of Freud; and Bluemel's advocacy of the concept of transitory auditory amnesia. The work of Haldane and Mavrogordata explaining speech defects in the interruption of expiration with an increased intra-pulmonary and intra-thoracic pressure, referable perhaps to an increased vagus activity, while not completely satisfactory, at least suggests a scientific approach. The work of Tra-

vis within the last few years followed that of Starr in his pioneer studies on the salivary pH and alveolar carbon dioxide content varying directly with the ph of mixed saliva in the cases of stammering, have been contributors valid and scientific.

For many years I was aware of a qualitative difference in the vital capacity and synchronization of intercostal and diaphragmatic musculature, posture, elimination and many other physiological factors in stammerers, and realized the necessity for accurate quantitative measurement. These very problems are now being investigated by my department. During the past several years one of my graduate students, trained in bio-chemistry conducted a series of hemato-respiratory studies of cases brought to our clinic and it is this specific new bio-chemical approach to the problem of stammering to which I desire to direct your attention.

Respiration is subject to dual control. The movements of respiration are in the main involuntary and automatic, the chemical changes in the arterial blood furnishing the principal stimulus. The movements of respiration, however, may be voluntarily controlled for brief periods, for example by holding the breath. When this is done the carbon dioxide accumulates rapidly, the natural stimulus becoming so insistent that the mechanism speedily returns to its automatic method. The second control of the respiratory movements is maintained and coordinated by afferent impulses constantly passing up the vagus nerves from the lungs. These impulses find their origin when a definite tension in the air vesicles of the lungs is reached in respiration but the moment at which the actual conversion of the inspiratory phase into an expiratory phase takes place is dependent upon the chemical stimulus in the respiratory center. An increasing amount of carbon dioxide apparently brings about an increase in the depth of respiration while anoxemia increases the respiratory rate with shallow breathing. Thus the chemical control of breathing is relative to the total amount of ventilation while the vagus controls the type of breathing that is to accomplish the ventilation.

The expiratory phase of breathing furnishes the energy for phonation and arythmia or insufficiency of any character, manifests itself in a disturbance of fluency. Emotional disquietude, such as fear, embarrassment or surprise or an intellectual uncertainty may produce general neurologic imbalance, temporary in

character, and thereby enhance the disturbance of the energy supply.

Trumper's study was made on one hundred and one cases of stammering as they appeared consecutively at the clinic, the subjects ranging in age from nine to thirty-two years. Thirteen were females.

The determination of vital capacity was made with the spirometer. Vital capacity is the greatest amount of air that can be expired after a maximum inspiration. The vital capacity varies with height, weight, sex, age, and skin area. With a large vital capacity the air in the lungs needs to be replaced less frequently because of a larger respiratory surface. The vital capacity does not represent the actual capacity of the lungs for there is always a certain amount of residual air remaining in the lungs after the most forceful expiration.

Of 82 adult stammerers 40 had a low vital capacity. There were 32 cases with a vital capacity between 10 and 38% below normal. The cases, show, irrespective of cause, a compensatory behavior in one of the following ways: (a) Normal breathing broken at intervals by an extra deep breath or gasp; (b) Rapid shallow breathing typical of anoxemia; (c) Definite increase in the volume per breath. Anyone of these compensatory types of breathing necessarily interferes with the smooth discharge of speech energy.

It is generally recognized that breathing cannot be estimated merely by inspection. To secure quantitative data the Sanborn apparatus was used, because being primarily designed for determining the basal metabolic rate, the graphs obtained readily lend themselves to the calculation of volume per breath respiratory rate, and total ventilation per minute.

This method isolated one-third of the adult stammerers as characteristically shallow breathers, and, much to our surprise, included very few in the group with low vital capacity. This result became so outstanding that one may conclude that individuals with low vital capacity are the least likely to be shallow breathers—in fact the smaller the vital capacity the less likelihood there is for them to be shallow breathers.

The shallow breather, from any cause, high altitude, chronic gas poisoning, severe pulmonary conditions, infectious disease, or severe cardiac condition, is subject to the physiologic response to

anoxemia. One of the most striking features of this response is an increase in hemoglobin and red cells compensating for the diminution in arterial oxygen tension.

Blood studies were made of the stammerers who were shallow breathers and even in these cases when there was no history of a previous or present pathological condition, the findings revealed a decided increase in hemoglobin, 95 and 97% against a norm of 85, and the red count ranging from 5,900,000 to 7,360,000 against a norm of 5,000,000. This is precisely the correlation obtained in the case of shallow breathing from some known pathological condition.

These findings were so constant in their occurrence that it was possible after a while to invert the order of the examination and on the basis of the respiratory findings perdict what was to be found in the hematologic study or to make the hematologic study and predict the pattern of breathing.

This new biochemical approach to the ætiology of stammering requires a multiple of test measurements of alveolar carbon dioxide content, hemoglobin, white and red blood count, vital capacity, hydrogen ion concentration of saliva. With these findings and a satisfactory psychological evaluation of personality I am hopeful that eventually it will be possible to make a positive diagnosis and prognosis and to outline an effectual and economic speech therapy.

I mean that we will be able, eventually, after complete clinical and laboratory findings, to say to a stammerer, "You will get better, provided you comply with our training." There will be some stammerers for whom we will likewise be as definitely able to predict "no recovery." Thus we will eliminate a great deal of futile training and will be able to devote our attention to those cases only where speech correction will prove effective; where rehabilitation of personality will follow and where it will be possible to insure a recovery complete, absolute, and permanent.

THE SPEAKER, THE AUDIENCE, AND THE RECOLLECTIVE IMAGINATION

LIONEL CROCKER
Denison University

THE speaker must re-create past experiences in the minds of the audience. Coleridge[1] goes to some length in attempting to distinguish between the Fancy and the Imagination but does not succeed in being very clear. What I am going to write about in this paper Coleridge would call Fancy, but to other writers it has seemed to be only one phase of the imagination. Burton[2] was content to call this the *recollective* imagination as distinguished from the *creative* imagination. Whately[3], realizing the necessity of making the past vivid, thought of this process as *historical imagination*. I believe that the speaker must not only possess this ability to vivify the past but he must be able to excite the audience to do so. Most of what the speaker has to say deals with past experiences.

There are undoubtedly times when the orator must picture what is going to happen, times when he must become one with the poet, who depends very largely on the *creative imagination*, producing that which never was on land or sea. For the purposes of this discussion, I wish to adopt Burton's term, *recollective imagination*, and discuss ways and means of awakening in the audience a vivid picture of the past.

As the speaker goes on, a moving picture should be enacted in the minds of the audience. It is through the imagination that the audience is transported beyond hard benches to the embankment in London, to the markets of Constantinople, to the incense-filled Buddhist temple in Tibet, or to the main street of Goshen. Painting, sculpture, the talking pictures, the stage can not surpass the spoken word of the orator as inciters of the imagination. These other art mediums often intrude themselves between the beholder, or the listener, and the full play of the imagination. Engraved illustrations in novels are usually disappointing,—they check the

[1] Biographia Literaria, Shawcross Edition, (1907), Ch. xiii.
[2] Yale Lectures on Preaching, (1888), p. 83.
[3] Elements of Rhetoric (1826), p. ii, ch. ii, sect. 2.

imagination. The spoken word goes even further than the written word as a provoker of the imagination. The talking pictures have changed the technique of the moving pictures for by a few words the imagination of the audience can be excited to do the work of a flash-back which would take a hundred feet of film. Remember that man's imagination was being excited by symbols of experience through the ear ages before he began receiving symbol stimuli through the eye. The radio again takes us back to the time of the ballad singer, the troubadour,—those travelling minstrels who entertained by appealing to the ear. "Amos n' Andy" over the radio are better than Mutt and Jeff on the funny sheet.

As a teacher of speech composition, I believe that it is my duty to teach my students the best ways of unleashing the imagination of the audience. I find that the average student fails when he comes up to a part of the speech which should stimulate the imagination. Instead of exciting the proper response in the minds of the audience by a few bold strokes, the student comes up to the scene, utters a few unexciting, image-less words and fails. I believe he fails because he does not appreciate that as he speaks the audience must be sensing *with their experience* what he is depicting. One student in trying to describe the lounging room of the lawyer's club in Ann Arbor said, "It is beautiful. It is very beautiful. I can not tell you how beautiful it is." The feeling of the rug under foot would have been an appeal to the sense and the imagination, of touch. The spaciousness of the room would have been another exciter of the audience's imagination. It does not matter if the audience has not seen the lawyer's club in Ann Arbor. They have been receptors of similar sensations, and it is a combination of these past sensations that the speaker should be interested in calling forth.

Now how may the speaker arouse the recollective imagination? Unlike the writer, the speaker should not dally over details. The speaker must adopt what Whately[4] called the "suggestive style." Whately says, "The author who is studious of Energetic brevity, should aim at what may be called a *Suggestive* style; such, that is, as, without making a distinct, though brief, mention of a multitude of particulars, shall put the hearer's mind into the same *train of thought* as the speaker's, and suggest to him more than is actually

[4] Elements of Rhetoric, (1826), p iii, ch. ii, sect. 9.

expressed." A splendid example of the suggestive style is found in the speech of David Lloyd George[5] on "The Meaning of America's Entrance into the War."

> The breaking up of the dark rule of the Turk which for centuries has clouded the sunniest land in the world, the freeing of Russia from an oppression which has covered it like a shroud for so long, the great declaration of President Wilson coming with the might of the great nation which he represents into the struggle for liberty are heralds of the dawn. "They attacked with the dawn," and these men are marching forward in the full radiance of that dawn, and soon Frenchmen and the Americans, British, Italians, Russians, yea, and Serbians, Belgians, Montenegrins, will march into the full light of a perfect day.

Such phrases as the *dark rule,* the *sunniest land, like a shroud, heralds of the dawn,* excite the imagination and "put the hearer's mind into the same train of thought" as the speaker's. The speaker can learn much from the Japanese painter, who, by a few bold, swift strokes, achieves his result. The landscape painter in the Occident, on the other hand, burdens his work with detail. What an exciter of the imagination is, "They attacked with the dawn!" Woodrow Wilson in speaking of the dangers of college activities packed a great deal of imagination into the thought that the main tent was in danger of being swallowed up by the side shows.

Figures of speech, the metaphor and the simile, are instruments for probing the imagination which the speaker cannot afford to ignore. Personification is a powerful stimulant to the imagination. Notice how effective personification is in this quotation from the speech of F. Charles Hume[6] on "The Young Lawyer."

> Esteem the law, thy mistress, the guardian angel of blind justice, and, by men's unthought apointment through the ages her majestic voice and dread interpreter. She sits aloft on her rock-ribbed Mount of Right,—a peaceful virgin, frowning chaos and disorder down throughout the world. To stay the hand of reckless might and turbulence she reacheth forth; and higher yet to lift the blood-won standard of long-wakening man's humanity to man.

Another bit of technique that the beginning speaker should acquire is that of introducing conversation into the speech. It

[5] Modern Short Speeches, J. M. O'Neill, (1925), p. 317.
[6] Modern Short Speeches, J. M. O'Neill, (1925), p. 253.

dramatizes the speech. Russell Conwell[7] in *Acres of Diamonds* makes wise use of this device. You will recall the illustration of the young man who went to Yale college to study mines and mining:

> "Let us go out to California and stake out gold and silver and copper claims and be rich."
>
> Said his mother: "Now, Charlie, it is just as well to be happy as to be rich."
>
> "Yes," said he, "but it is just as well to be rich and happy, too."

This method of stirring the imagination can easily be mastered by the student. It is sure to make a speech more interesting. There is no doubt in my mind that much of the popularity of Conwell's address was due to this method of quickening the imagination.

Teaching the student to kindle the imagination by travelling all the avenues of sense impression yields tremendous returns in more interesting speeches. The inexperienced speaker is apt to use the visual approach exclusively. He addresses all of his remarks to the sense of seeing. He seldom weaves into the address appeals to the sense of touch and pain. Yet notice how powerful is the effect on the listener of this passage from Ingersoll's[8] address on *The Liberty of Man:*

> I saw, too, what they called the Collar of Torture. Imagine a circle of iron, and on the inside a hundred points almost as sharp as needles. This arrangement was fastened about the throat of the sufferer. Then he could not walk, nor sit down, nor stir without the neck being punctured by these points. In a little while the throat would begin to swell, and suffocation would end the agonies of that man.

Not only can we get imagies of pain to the listener, but we can make him re-live the feel of velvet, the feel of soft rugs under the feet, the heat of a summer sun.

The sense of smell is almost entirely neglected by the beginner. Yet what more powerful images are there to call forth than the smell of burning flesh, the smell of a skunk, the fragrance of a rose garden, incense, the tang of sea air. Henry W. Grady[9] in his speech on "The Race Problem in the South "undoubtedly touched

[7] **The Delivery of a Speech, R. K. Immel, (1921), p. 80.**
[8] **The Delivery of a Speech, R. K. Immel, (1921), p. 116.**
[9] ***Ibid.* p. 241.**

the imagination of his audience by this approach to the sense of smell:

> In the same field the clover steals the fragrance of the wind, and the tobacco catches the quick aroma of the rains.

Altogether too frequently the auditory image is ignored by the unskilled speaker. What a part in the description of Peter's denial the crowing of the cock plays! Yes, and the speaker needs to be made aware of the power of taste in recalling past experiences. We remember that a cup of cold water symbolizes the spirit of Christianity; the cup of water neither hot nor cold, so insipid that one spews it out of the mouth, symbolizes the indifferent, careless, un-Christian spirit.

Robinson[10] in his book *Effective Public Speaking* in discussing the problem of arousing the imagination of the audience uses this illustration from Beecher's lecture on *The Gamblers*. As you read, notice how many of the sense images are played upon by Beecher in order to make the listener re-live the scene. It must be kept in mind that the speaker's art does not call for *contemplation* on the part of the audience, there must be *participation*.

> Go with me to that dilapidated house not far from the landing in New Orleans. Look into the dirty room. Around a broken table, sitting on boxes, kegs and rickety chairs, see a filthy crew dealing cards smouched with tobacco, grease and liquor. One has a pirate face, burnished and burnt with brandy; a shock of grizzly, matted hair, half covering his villian eyes, which glare out like a wild beast's from a thicket. Close behind him wheezes a white-faced, dropsical wretch, vermin covered and stenchful. A scoundrel Spaniard and a burly negro (the jolliest of the four) complete the group. They have spectators, drunken sailors and oggling, thieving, drinking women, who should have died long ago when all that was womanly died. Here, hour draws on hour, sometimes with brutal laughter, sometimes with threat and oath and uproar. The last few, stolen dolars lost, the temper also—each charges each with cheating. High words ensue, and blows and then the whole gang burst out the door, biting, scratching and rolling over and over in the dirt and dust. The worst, the fiercest and the drunkenest of the four is our friend who began by making up the game.

So much for the necessity of bringing to the student's attention the need of approaching the problem of calling forth the

[10] p. 179.

imagination of the audience by means of sense impressions. There are one or two other devices that I have found successful in making the student speaker imagination-conscious.

The epithet, either for praise or blame, is a good friend of the public speaker. It will be recalled that Aristotle[11] devotes much space to its consideration. Ingersoll, whom Beveridge[12] called one of the four orators America has produced, dubbed Blaine, "The Plumed knight," an epithet which was rich in association and effective in arousing friendly images. Fortunate is the speaker who has developed the ability to characterize in a phrase. I am not pleading for phrasemakers but at the same time I do not scorn the ability. What paragraphs are made unnecessary by the phrase, "Bryan, the silver-tongued orator!" In these cases the speaker is trying to present a bare outline which the audience will fill up by the properly aroused images out of their own experience.

Although it is true that words mean almost nothing in themselves and everything in combination, the beginning student should develop a sense for the image-provoking, association-freighted word. The naming of restaurants, a word which seems to have fallen into disfavor, grilles and coffee shops, illustrates the power of individual words. Recall how many synonyms we are developing for the poor undertaker. At the same time the speaker will discard such time-worn phrases as: heir of the ages, the scenes he loved so well, etc. The power to stimulate the imagination has largely gone from these phrases.

Charles E. Jefferson[13] has given us a beautiful testimony as to the power of words:

> Words have moods as people do, and the preacher must be master of the words which carry in their hearts the dispositions which he desires to communicate to his people. There are reverent, kneeling words, warm, tender and affectionate words, open-handed, open-hearted, hospitable words, laughing, shouting, hallelujah words—words which are so rich in human experience, so saturated with laughter and tears, that if the preacher breaks them upon his congregation they fill with perfume, like precious alabaster boxes, all the place where he is preaching.

[11] Rhetoric, B. III.
[12] The Art of Public Speaking, (1924), p. 13.
[13] The Building of the Church, (1911), p. 150.

Walt Whitman has said, "All words are spiritual, nothing is more spiritual than words. Whence are they? Along how many thousands and tens of thousands of years have they come?" The speaker should become aware of the spiritual content of words. The speech teacher can profitably devote time to making the student word-conscious. Changes in the meaning of words can be studied to great advantage. This knowledge of words should characterize the college-bred public speaker. The New Oxford Dictionary is of inestimable aid in setting forth the family history of words.

Students, like Ulysses, are a part of all that they have met, but they do not know how to tell it. By the time they get into college they have seen something of life. Yet, most student speeches are uninteresting. Why? It is because they do not have the technique of arousing the imagination of their audience. One does not have to go around the world in order to have something to say. Witness the sailor who sails the seven seas and returns home with a parrot on his arm, and with strange and weird scenes tatooed on his anatomy,—but with nothing in his head worth communicating. Student speeches are uninteresting because students do not know how to make them interesting. To teach them *how* is our job.

What have I said to help in this process? Teach the student that his task is to arouse images in the minds of the audience; that he is dealing with the recollective imagination; that the suggestive style is worth mastering; that figures of speech should be used more frequently; that conversation introduced into a speech will open the imagination; that all avenues to sense impression should be used; that telling epithets should be sought; that a feeling for the importance and power of individual words should be a part of his equipment.

I have been aided in the preparation of this article by the following works: Krapp's, *The Knowledge of English*, Brander Matthew's *Essays on English*, Ogden and Richard's, *The Meaning of Meaning*, Overstreet's, *Influencing Human Behavior*, Pillsbury and Meader's, *The Psychology of Language*, Bliss Perry's, *The Study of Poetry*, besides the books already noted.

DEBATE AND THE AUDIENCE PROBLEM

E. D. SCHONBERGER
University of North Dakota

IN seeking to understand any subject, the first thing to do is to get at the motive force behind it. Why is it, and why is it as it is? In seeking to come to some definite conclusions concerning debate, the same questions are pertinent. Why is debate? And why is it as it has been for some fifty years in our schools and colleges?

Broadly speaking, debate is nothing more and nothing less than a civilized quarrel. It springs from an instinctive desire on the part of every one of us to bring everybody else we meet into a state of likemindedness with ourselves. In primitive society this desire led to all kinds of disgraceful brawls and unreasoning emotional outbursts. Enlightened people have reduced their disagreements to some semblance of orderly thinking, and have learned to subject their conclusions to the searchlight of reason. In our formal college debating, we have carried this process pretty close to the borderline of an exact science.

Because of this serious, semi-scientific exactitude, debate was the first of all the speech arts to command academic respect, and for much the same reason it has always been the least popular of all college activities.

Without taking into consideration the true nature of debate, many young coaches have seriously set themselves the objective of injecting something into debating that would enable them to draw larger audiences. One of them, in a recently published article (note: Sugar-coating The Pill, Mr. William Schrier, N. D. University *Quarterly*) seems to pin his hopes to humor as the sugar-coating to make the "pill" go down with a larger public. But supposing that comic relief did result in wider popularity, there is still a very serious question to answer, and this question I shall attempt to answer without specifically asking it at this point.

Having been a debate coach for nearly twenty years in three different institutions, and having shed sanguineous perspiration over the seeming apathy of three student bodies, I conclude that debate is not intrinsically interesting. It is a scholarly inquiry carried on in a public way, and as such it must necessarily appeal to

scholarly minds only, and even to those only when they are in a studious mood. If it is to be generally interesting, we must have something that would serve as an artificial stimulus. If the student body as a whole is to be enlisted, as an audience, we must revive the old rivalry, or put something else equally stimulating in its place.

Good publicity may attract an audience to a clash between important opponents. It may for a time succeed in making the minority of students believe that they should attend such a contest for their own good and for the good of the cause. If the contest were of a nature to hold interest when once aroused, the audience problem would disappear. But somehow debate fails to whet the appetite for more. For the most part the people who find debating intrinsically interesting are the debaters themselves. Saying that all students should be vitally interested in such questions as debaters usually discuss does not alter the facts in the case. We must confess that debate lacks the elements of popular appeal, and when we have taken away such external stimuli as the more or less objectionable decision, we have deprived it of one of its most powerful "come hithers."

Personally, I cannot find myself in entire accord with the younger coaches who advocate the no-decision debate, although I realize that the system may have several things in its favor. It simplifies the activity, it does away with considerable expense, and eliminates much bitterness and misunderstanding. Best of all, it transfers effort from the mere aim of winning the decision to the more worthy one of discovering truth. It enables the teacher to be a better teacher. Too often the most "winning" coach has been the poorest teacher.

Debate is invaluable to the students who participate in the exercise. It stimulates the thinking processes, sharpens wit, develops attention and alertness, brings out personality, and generates a power which every student should covet. But I have yet to find those who would acknowledge that they have been materially benefited by listening to a college debate. Unless the debaters are unusually skillful in holding attention the two hours more or less are likely to be deadly dull, and few students are willing to put themselves in a way of being so bored again.

Here, then, is a situation. American debating is not so pop-

ular as our modern standards of success demand. Audiences at debates have always been comparatively small, but they seem to be growing smaller. Students seem to crave entertainment rather than intellectual stimulus. Debate does not entertain. What then? The English debaters come along and for a time at least students crowd to hear them. The Oxford boys have a style of their own. The fact that it resembles our old style country school debate without purpose or logic is all in their favor. They have come to entertain us and get our good will, and not to defeat us by their superior skill in debating. Their large audiences have a good time, they laugh at the sallies of good-natured wit. If the debate could always be like this, they think, they would just as soon come again.

So the worried American coach says to himself: "Here we have it. This is what our public has been waiting for, and we did not have the sense to give it to them. The Englishmen have taught us something useful. We shall inject humor into our method and our audience problem will be no more."

Humor has always been recognized as a valuable aid to persuasion. Judiciously employed, it helps to win the audience, quickens attention, and prepares for the reception of the serious message. Very often the difference between an effective and ineffective speaker has been the difference in a sense of humor. The man who can be funny and serious at the same time is a born leader, but very few college debaters can be genuinely and cleverly amusing without losing sight of the main objective, which is a serious discussion of a vital proposition.

Everything today is being "jazzed up" with a view to increased popularity. Debate can well afford to remain an honorable exception. If it is to maintain itself as the highly respected college activity it has always been, it must continue to make minimum use of *College Humor* and wise-crack anthologies, and a maximum use of the more reliable scholarly publications. The only type of audience that can do us any good is the type that comes to learn the right and wrong of a proposition, and not the type that comes to see how "cute" and clever the debaters can be in dispensing wit and repartee. That is an accomplishment that may be worth cultivating, but not at the expense of serious debating, it seems to me.

Another English trait that I have heard imitated at nauseam is the long and often re-iterated, the by-every-speaker-repeated "contact" introduction, perfectly in order in a rare international good will debate, but entirely insincere and unnecessary in an ordinary intercollegiate debate. I have heard these welcoming-to-our-campus introductions used by all three speakers on both sides, not one of whom seemed to see fit to cut it down for the sake of giving the much more necessary and appropriate analysis of the question. Young debaters are very keen to catch on and to overdo, and I believe the American coach will do more to save our debate if he discourages rather than encourages servile imitation of the Oxford style. I even venture to say that the skillful Englishmen themselves would have won more credit with most of their American audiences if they had chosen to discuss their questions seriously and authoritatively, instead of superficially and facetiously as was the case for the most part.

My conclusion is that the comic relief and the informal personal type of approach will not solve the audience problem. On the contrary, the immature, unseasoned use of humor in our debating since the English invasion has spoiled the pleasure of debating for those who like to hear a serious question seriously dealt with, and it has not enhanced it much with those who prefer to be amused. The trouble is that the amusement lovers will not stay with the game long. There are too many better forms of amusement available in every community. The people we can permanently depend on for patronage are those who delight in close reasoning, clear analysis, and an effective display of debating strategy and tactics.

What, then, will serve to "popularize" debate? Nothing, perhaps, except the old time rivalry, which the no-decision theory has removed. A fierce clash with a formidable opponent with a championship at the end of the season may enlist student support.

But why should we need to worry about popularity? A wise old Dean of a college where I struggled with the audience problem for many years comforted me by saying that students should not be expected to attend the debate in any large numbers, but that it should be a comfort to me to know that they all held the activity in the profoundest respect. Debate is now being supported everywhere by student enterprise fees, and few students have been heard to complain of the system. The fact is that students are willing

to pay to keep the activity going, which proves what they think of it, but they do not often feel in the scholarly mood necessary to enjoy an argument over a question more or less foreign to their sphere of thought. Recognizing its immense value as training for life, they gladly give their financial support. Having done this bit, they asume that they have discharged their obligation, as many of us do when we have paid our church or club dues.

Is this a pessimistic view? Not at all. I have simply tried to employ the method of residues in my reasoning. I have tried to point out that debate by its very nature is not intended to appeal to the many; that it is not intrinsically a popular performance. It is, like a good book, intended for the chosen few. In college circles it is essentially a class-room exercise. It must deal with scholarly subjects in a scholarly way, and any serious attempt to inject such extraneous elements as comic relief, may debase it from its high estate. This is particularly the danger where immature college debaters are concerned. Not many of these can be expected to be spontaneously funny, and at the same time maintain a clear grasp of the entire case.

It must be understood that I am not averse to a judicious use of humor in debate, or in other forms of address. My one contention is that the undiscriminating use I have heard made of it in recent debates has amounted to a serious fallacy of *argumentum ad* something or other. My other contention is that it will not do for debating what it is expected to do, but that it may eventually do the reverse.

What is to be done. We must have an audience, if the participants are to receive full value out of the exercise. I believe the remedy is at hand. Civic clubs the country over have learned that a college debate is not only interesting, but instructive. Compulsory high school and college assemblies would rather listen to a college debate than to a perfunctory speech by a more or less distinguished speaker. The audience that is furnished, not *for* the occasion, but *by* the occasion is likely to be better prepared mentally for a spontaneous reception of the arguments. Here, I believe, is the very best location for our sham battle ground.

There is still another and more certain way of furnishing the necessary audience. I have said that debate is essentially a class room exercise. It is a solid subject, demanding serious investiga-

tion. It may properly constitute one of the fields of research in the Speech department. It has both the advantage and disadvantage over other fields in that the research is not complete until it has been publicly demonstrated in a defintely established form of address. The student is to seek to learn the truth first, and then to impart it by word of mouth to a body of listeners. To do this effectively in the manner of debate he needs an opponent to challenge his conclusions, and an audience to win away from his opponent. This audience can be found, if everything else should fail, right in the department to which debating belongs.

If necessary, we can use the authority of the Speech department to furnish the required hearing. Every higher institution of learning today has a well defined Speech department with a sufficiently large enrollment to make up a respectable audience for any debate. If any department may require of its students anything it deems fitting, why not let the Speech department require attendance at forensic contests? It is certainly a necessary part of speech education, and students would willingly exchange an hour of recitation in class for an hour or two of posing as an audience.

This measure, let me say, I should advocate only as a last resort—only when everything else has failed. It may be somewhat drastic and autocratic, but I believe it is much to be preferred to the cheapening of debate by an attempt to popularize it.

I attach the greatest importance to debating as a collegiate activity. One of the most gratifying things about my seemingly thankless job has been the frequent testimony from ex-debaters that their platform experience as intercollegiate debaters had proved the most valuable one thing they had derived from their college course. It is because I wish to encourage debating, and to keep it on a plane where it can continue to deserve the high respect it has always enjoyed that I set these reflections on papers.

A FUNCTIONAL INTERPRETATION OF ARISTOTLE'S *RHETORIC*

LESTER W. THONSSEN
University of Iowa

ARISTOTLE, in the opening sentence of the *Rhetoric*, declares rhetoric to be "the counterpart of dialectic," and immediately thereafter draws the conclusion that "all men make use, more or less, of both; for to a certain extent all men attempt to discuss statements and to maintain them, to defend themselves and to attack others."[1] Thus he implies that rhetoric enables human beings to adjust themselves more satisfactorily to the environmental settings in which they find themselves. In other words, it is able to perform a service, and, to that end, is useful. This interpretation of the *Rhetoric* is highly suggestive of a modern school of psychological thought, functionalism, which has held a significant position in philosophical circles for more than a quarter of a century. Since the *Rhetoric*, in the opinion of E. Wallace, "forms as it were an appendix to the *Psychology* [of Aristotle] by means of that analysis of the emotions which is one of its most important features."[2] it will be interesting to raise the question of whether Aristotle, in writing the *Rhetoric*, presented the subject from a functional point of view. And it will be important to investigate this probable rleationship because, if found to exist, it may be instrumental in vitalizing the place of the *Rhetoric* in modern speech theory.

In the investigation of the relationship between Aristotelian rhetorical function and modern psychological function three distinct angles of study present themselves. First, a general interpretation of functionalism must be given; second, the views of Aristotle with regard to the functional interpretation must be noted; and third, the *Rhetoric* must be examined in the light of the findings for the first and second investigations.

[1] *Rhetoric*, 1354a 1-5. (All references to the Rhetoric are from the translation by W. Rhys Roberts: *The Works of Aristotle Translated Into English*, Vol. II, edited by W. D. Ross, Oxford, 1924).

[2] *Aristotle's Psychology*, Cambridge, 1882, p. xix.

II

Functionalism is difficult to define. However, it is quite possible to interpret the major principles of the school on the basis of those features which are more or less common to all functional systems. The term "function" is perhaps the core of the problem. What is *function,* or *a* function? How does the so-called functionalist interpret the meaning of "function" in the light of his thought world? In the study of psychological function the biological interpretation is fundamental, and the following statement from E. S. Abbot will bear out the point:

> In the biological sciences the word *function* is used in connection with the *activity* of some structure or mechanism; and, since structure or mechanism involves an end, function has to do with *activity directed to an end.* This expresses an actual or potential relation between two terms, a something which acts or is capable of acting, and a something which is done or is to be done.[3]

The close inter-relationship between structure and function is conceded in the above statement, while the primary emphasis is upon the directed activity which the structure makes possible. It is also to be noted that there is a purposive implication in the above interpretation; this is perhaps in keeping with many of the major biological investigations. At any rate, the presence of a teleological function serves as a natural bond of connection between biological function and modern psychological thought of the functional type. The remarks of J. R. Angell, one of the leading functionalists, on the problem of the appearance of consciousness serve as an example:

> .... it may be asserted that consciousness in one or other of its forms normally appears and participates only in such activities as cannot be efficiently executed by the hereditary reflexes and the acquired automatisms.....If the reflexes and the automatic acts were wholly competent to steer the organism throughout its course, there is no reason to suppose that consciousness would ever put in an appearance.[4]

A functioning consciousness is regarded as an agency of direction which is serviceable to the organism. Consciousness, regarded as a

[3] "The Causal Relations between Structure and Function in Biology," *Amer. J. Psychol.*, 27, 1916, 246.

[4] *Psychology*, New York, 1908, p. 63 f.

mechanism of adjustment, has as its function the guidance of an integrated organism with reference to changing environmental circumstances. There is a striking correspondence, therefore, between the biological significance of the term "function" as given by Abbott and the psychological interpretation of a biological principle as given by Angell.

That the biological significance of the term "function" is rather whole-heartedly accepted by psychologists who have occasion to use the term in their treatises is shown by reference to a study by C. A. Ruckmick on the use of the term "function" in various English textbooks of psychology. He classified the views under two main heads: first, function having service as its end or purpose.[5] However, he concluded that, irrespective of the varied uses of the term and irrespective of its meaning in an arbitrary classification, function spelled *activity* of some kind in every case.[6] His study revealed the fact that all writers who used the term gave it, as was to be supposed, a dynamical interpretation. Of special interest to this paper was the idea that "function" referred to the *serviceable activity* of some operating mechanism; the function of the particular agency was adaptive inasmuch as its operation involved a tendency toward an end which was of service to the mechanism as a whole.

E. B. Titchener, in an article which was by no means sympathetic toward functionalists but which itemized, with singular skill, the basic tenets of the school, said there were at least four features which most functional systems had in common. First, the functionalist recognizes a distinction between "activity" or "function" and "content" or "structure," and this division reveals a biological delineation between function and structure of organic life.[7] This is undoubtedly the primary feature of the functional systems since it marks the distinction between that which is mere content and that which is an active, functioning process resulting in action. The implications growing out of such a division are set forth by J. S. Moore:

[5] "The Use of the Term Function in English Textbooks of Psychology," *Amer. J. Psychol.*, 4, 1913, 101.

[6] *Ibid.*, p. 101.

[7] "Functional Psychology and the Psychology of Act. I," *Amer. J. Psychol.*, 32, 1921, 533.

> The functionalist .... is interested primarily in the dynamic value of the mental processes, in conation rather than cognition and affection. To him knowledge and feeling are not so much contents of mind as processes expressing themselves in action, as media between stimulus and reaction, having for their chief purpose the controlling of the adjustments between the organism and its environment.[8]

Second, Titchener says "functionalists are disposed to correlate the phenomenon of consciousness with the unreadiness or inadequacy of the nervous system..."[9] In other words, consciousness is a phenomenon of biological significance, and it evolved because the simpler automatisms were no longer able to provide for satisfactory environmental adjustment. The statement of Angell, as previously referred to,[10] bears out this line of approach. Third, according to Tichener functionalists introduce a strong teleological factor.[11] It is quite obvious that such would be the case since most biological interpretations are enshrouded in a casement of purpose. Fourth, the functionalist looks upon psychology as a sort of preface to philosophy.[12] Titchener held that functionalism was little more than a system of speculation which failed to conform to the minimum essentials of scientific method. But that factor is not of major concern for this paper.

In other words, it may be said that functionalism is a school of thought in which the mind and body are regarded as a unit reacting to environment settings; the inherent make-up of mind is not studied as a "content" but rather as a process which results in action and thereby effects a functional performance; and this performance is an activity of a serviceable type.

III

How does Aristotle treat of "function" in his works on psychology?

The studies made by Aristotle into the nature and functions of mental life were clothed in biological form. J. M. Baldwin says "Aristotle set himself to investigate the functions of the soul,

[8] "The Articulation of the Concepts of Normal and Abnormal Psychology," *Amer. J. Psychol.*, 25, 1914, 285.

[9] *Op. cit.*, p. 535.

[10] See *Supra.*, p. 3.

[11] *Op cit.*, p. 537.

[12] *Ibid.*, p. 540.

looking upon it as the biological principle of form in nature."[13] In the matter of biological emphasis Aristotle might be named the first to treat of the organism as a psycho-biological unit. This trend may be noted through reference to his idea of the physical world, which he conceived as being composed of organic and inorganic forms.[14] The principle of life was the distinguishing characteristic between them. In the organic division there was a continually ascending scale, without apparent break in development, until man was reached. Vegetable life had only the faculties of nutrition and reproduction; lower animals had the faculties of nutrition, reproduction, and sensation; man, possessing all the faculties of the forms below him, had, in addition, the faculty of reason.[15] "Man as the end of all nature, embraces in himself the different steps of development in which the life of nature is exhibited."[16]

The adaptive processes to which reference was made in the first section of this paper are in evidence in Aristotle's treatment of organic life. The divisions of organic life represent stages of psychical activity, since it is assumed that there is a soul principle operating in all organisms. In the vegetable world the soul serves merely nutritive functions. By going up the scale it is possible to determine the "faculties" possessed by each level of organic life.[17] But Aristotle does not specify how many faculties there are. Of course, faculties have specific meanings for him. They correspond to the fundamental divisions of organic life—"plant, brute, and man."[18] The indivisible unity of these faculties in man constitutes the *entelechy*. The added faculties of the forms in the ascending scale give added powers of orientation to external settings. Man, having all the faculties of the lower forms plus the added faculty of reason, has a superior command over the environment. Aristotle's psychology is thus replete with back references to biological data. His complete division of psychical

[13] *History of Psychology*, New York, 1913, Vol. I, p. 76.

[14] *De Anima*, p. 54. (All references to Aristotle's psychology are from the translations by W. A. Hammond, *Aristotle's Psychology*, London, 1902).

[15] HAMMOND, W. A.: *op. cit.*, p. xxix.

[16] SCHWEGLER, A.: *History of Philosophy*, New York, 1906, p. 149.

[17] *De Anima*, p. 54.

[18] HAMMOND, W. A.: *op. cit.*, p. xxvii.

functions is in keeping with the biological advancement of organic forms. Undoubtedly Aristotle was thinking in terms of what the organism could do. And the resulting activity of the organism was effected through the co-operative functioning of mind and body, since, as Aristotle said, the mind was to the body what cutting was to the axe.[19]

Aristotle's treatment of the entelechy coincides quite closely with modern notions of functional psychology. Aristotle speaks of the soul as the realization of the body.[20] This relationship of soul to body is explained by E. Wallace:

> For body and soul stand to one another ... just as matter to form, as what is potential to what is actual; and thus soul is the entelechy or full realization of the body—not certainly as though it were the last result of bodily organization, but as the form which gives meaning and truth to the bodily functions.[21]

This shows that the entelecy was not finished product. It was a possibility which might be realized, and organized activity or functional performance was the key to its realization. The entelechy anticipated full realization in the use of the faculties of which it was the unity. The entelechy is conceived "as the entity which realizes its form in association with matter."[22] It is a biological fruition which is dependent upon concomitant relationships between psychical and physiological phenomena. Mind and matter, if the traditional division is employed, are indivisible in that the two realize an end only through inter-functioning circumstances. The resolution of mind and body into an entelechy composed of faculties of which it itself is the unity represents a thought position similar to monistic beliefs of modern times, provided, of course, that the *active reason*[23] of Aristotelian philosophy is omit-

[19] *De Anima*, p. 45.

[20] *Ibid.*, p. 44.

[21] *Outlines of the Philosophy of Aristotle*, Cambridge, 1894, p. 11.

[22] WINDELBAND, W.: *Introduction to Philosophy*, New York, 1921, p. 63.

[23] The *active reason* is omitted from this discussion because it apparently implies a divine conception. The exact interpretation of it has long been a matter of conjecture among commentators of Aristotle. Weber and Perry *(History of Philosophy*, Revised Edition, New York, 1925, p. 97) say the *active reason* cannot be explained as a function of the body; it is not a product, but an absolute principle. See also W. A. Ham-

ted for the sake of the argument. The point of significant concern, however, is the fact that the entelechy is the realization of the ultimate through the functional performances of the organized faculties. It is, as G. T. W. Patrick says, the fruition of the body.[24]

"There are two powers in the soul which appear to be moving forces—desire and reason..."[25] And, "both of these, reason and desire, can produce locomotion..."[26] Here is found a definite statement of dynamic tendency. Its implications reveal a marked functional emphasis. The activity which results from these moving forces is directed toward an end which serves the organism well. And when Aristotle indicates that the epitactic reason "considers ends and is concerned with conduct" and that "every desire aims at something,"[27] he gives the purposive argument which speaks in favor of organismic service. The major point for which concern is here manifested is that the powers of the soul are moving forces. Aristotle indicates that "it is reasonable to regard these two principles, viz. desire and practical reason, as motor forces."[28] Such a declaration makes legitimate the conclusion that Aristotle's psychology places particular emphasis upon the functional performance of the organism.

Aristotle capitalized sense impressions. Practically all of the chapters of the second book of *De Anima* are given over to the treatment of the sensational aspects of experience. It is evident that Aristotle regarded stimuli and responses as the determining factors of activity. And functional performance receives its initial impetus in such an empirical attitude. When Aristotle recognizes sense impressions as the first of the three steps in the process of knowing,[29] he advances a theory of knowledge which points the way to the realization of the entelechy. And most assuredly the entelechy represents a dynamical conception, a moving principle, a series of functional adaptations. The sense impressions were the

mond *(op. cit.*, pp. lxxi-lxxxvi) for a review of the various opinions of the *active reason* as held by philosophers through the ages.

[24] *What Is The Mind?*, New York, 1929, p. 5.

[25] *De Anima*, p. 132.

[26] *Ibid.*, p. 132.

[27] *Ibid.*, p. 132.

[28] *Ibid.*, p. 132.

[29] *Ibid.*, p. 67.

empirical facts which united man with the outer world. So when L. D. Arnett submits the opinion that Aristotle makes nature the organic bond between all individuals,[30] he presents a conclusion with which it seems comparatively easy to agree. It will be interesting to note whether Aristotle applied this psychological principle to the rhetorical situation.

IV

Aristotle defines rhetoric as the "faculty of observing in any given case the available means of persuasion."[31] Persuasion is thus made an end which is achieved through rhetoric as an active agency. The agencies, or modes of proof, for the accomplishment of the end are three in number: "the personal character of the speaker," "putting the audience into a certain frame of mind," and "the proof, or apparent proof, provided by the words of the speech itself."[32] Since "we believe good men more fully and more readily than others,"[33] and since "our judgments when we are pleased and friendly are not the same as when we are pained and hostile,"[34] and since "persuasion is effected through the speech itself when we have proved a truth or an apparent truth by means of the persuasive arguments suitable to the case in question,"[35] it is clear that the available means of persuasion perform a serviceable activity in that they effect a more satisfactory relation between hearer and speaker, and between hearer and environmental setting. Rhetoric, therefore, in effecting such adjustments, has as its function[36] the performance of an activity which is serviceable.

The classification of speeches into three kinds—political, forensic, and ceremonial oratory of display—on the basis of the

[30] "The Soul—A Study of Past and Present Beliefs," *Amer. J. Psychol.*, 15, 1904, 160.

[31] *Rhetoric*, 1355b 26.

[32] *Ibid.*, 1356b 1-5.

[33] *Ibid.*, 1356a 6.

[34] *Ibid.*, 1356a 15.

[35] *Ibid.*, 1356a 18-20.

[36] It may be indicated that the term "function" appears quite often in the text. For examples, see 1355b 10, 1355b 13, 1355b 14, 1355b 28, 1415a 22. Granted that the study is made from a translation, the frequency of appearance of the same concept—translatable as "function"—is not wholly insignificant.

hearer's relation to the speaker and subject[37] is added evidence that the Aristotelian conception of rhetoric is functional.[38] If the hearer decides about a future event, the speech is political; if he passes judgment on a past event, it is forensic; and if he is a mere observer, passing judgment on the speaker's skill, the oratory is ceremonial. The classification is not formal; the speech represents a virtual *becoming* with respect to the future, past, or present time. That "rhetoric has three distinct ends in view, one for each of its three kinds,"[39] is additional proof that the art is designed to secure certain results. Political oratory proposes to establish the expediency or harmfulness of a proposed course of action; forensic, to establish the justice or injustice of an action; and ceremonial, to praise or attack a man. To achieve these ends the speaker must have at his command propositions about the expedient, the just, and the honorable.[40] And all considerations should be treated with definite reference to these principal aims. Here, too, the functional implications of serviceability appear, for the merit of the arguments employed must be determined in the light of applicability and general usefulness in securing the desired end.

Certain modes of reasoning are found to be more suitable to each of the three kinds of oratory than the others. The example, since it provides the best index of the future, will have its greatest effectiveness in political oratory.[41] Since "forensic oratory deals with what is or is not *now* true, which can better be demonstrated, because not contingent," [42] the enthymeme will have its greatest use. By it the lawyer can argue progressively to the conclusion. Neither the example nor the enthymeme specially suits the conditions of ceremonial oratory, but instead the method of 'heightening the effect.'[43] If the nobleness is to stand out, it

[37] *Rhetoric*, 1358b 6-8.

[38] It may be argued that in a treatment of rhetoric it is impossible to be anything save a functionalist. Probably this is true. If so, it ought not to be regarded as a wholly insignificant recommendation for the functional system of thought.

[39] *Rhetoric*, 1358b 21.

[40] *Ibid.*, 1359a 6.

[41] *Ibid.*, 1418a 1.

[42] *Ibid.*, 1418a 3-5.

[43] *Ibid.*, 1368a 22.

must be magnified. Thus the assignment of definite ends to the three types of speaking, together with the recommendations for particular types of logical forms applicable to each of the three kinds, tend to reveal a marked functional implication. The rhetorical processes perform serviceable activities in effecting those audience relationships in which the speaker is particularly interested and toward which he is directing his efforts.

In the three modes of proof the evidence is convincing that the *Rhetoric* was conceived from a functional point of view. Ethical proof, that type which "depends on the personal character of the speaker,"[44] is, significantly enough, an artistic proof; that is, it is achieved by what the speaker says, not by what people think of his character before he begins to speak."[45] No more pronounced functional implication can be found than this, since only through performance, through activity, can ethical persuasion be effected. A serviceable end is achieved through the speaker's good sense, moral character, and good will,[46] to say nothing of his knowledge of emotional behavior and his use of apt language.

The second mode of persuasion, pathetic proof, depends on understanding the emotions, "those feelings that so change men as to affect their judgments."[47] So important is this mode of persuasion that Aristotle inquires into the emotions of anger and calmness, friendship and enmity, fear and confidence, shame and shamelessness, kindness and unkindness, pity, indignation, envy, and emulation[48] from three points of view: the state of mind of the person feeling the emotion, those toward whom the emotion is felt, and on what grounds the emotion is felt. Not content with this treatment of emotions, Aristotle examines the "various types of human character, in relation to the emotions and moral qualities, showing how they correspond to our various ages and fortunes."[49] This is not conducted from the scientist's point of view—the acquisition of all the facts about these elements for their own sake—but because their acquisition by the speaker will aid in the attainment of the desired reaction.

[44] *Ibid.*, 1356a 2.
[45] *Ibid.*, 1356a 5-10.
[46] *Ibid.*, 1378a 5-10.
[47] *Ibid.*, 1378a 20.
[48] *Ibid.*, 1377b - 1388b.
[49] *Ibid.*, 1388b 32.

The third kind of persuasion depends "on the proof, or apparent proof, provided by the words of the speech itself."[50] Logical proof is of two main kinds: example and enthymeme. Aristotle, in his treatment of the relation which should exist between these two, provides more evidence for the point of view here presented. The example rarely suits the conditions of speech-making, probably because of the audience's inability to follow close reasoning; if the enthymeme can be used, the example should follow for it will have the effect of a witness giving evidence.[51] The fable, one form of the example, "is suitable for addresses to popular assemblies."[52] The maxim, a compressed enthymeme, is effective because it expresses in general terms what people believe in a particular connection and because it "invests a speech with moral character."[53] The premises of enthymemes must be selected from the opinions accepted by our judges or "by those whose authority they recognize."[54] In short, Aristotle conceives of arguments in terms of their functional adaptability. Arguments of specific types are instruments by means of which particular responses are secured; arguments perform services; arguments of the proper kind are useful in securing desirable ends. And it is the purpose of the field of rhetoric to perform such services since "to a certain extent all men attempt to discuss statements and to maintain them, to defend themselves and to attack others."[55] And art which makes possible such definite adaptations, as the Aristotelian conception in the *Rhetoric* does, must bear the stamp of functional implication. The entire invention emphasis reveals the fact that Aristotle stresses function more than form, and to that end he is more interested in the activity occasioned by rhetorical means than he is in the methodological procedure by which the activity is aroused.

In a matter of style one would expect considerable deviation from standards of practical application. On the contrary, however, the treatment of style is as thoroughly functional as is the treatment of invention. In the *Rhetoric* Aristotle does not seem

[50] *Ibid.*, 1356a 3.
[51] *Ibid.*, 1394a 13.
[52] *Ibid.*, 1394a 1.
[53] *Ibid.*, 1395b 13.
[54] *Ibid.*, 1395b 35.
[55] *Ibid.*, 1354a 3-6.

to be interested in style, *per se*, but instead, he is interested in the service or function which stylistic effects may achieve. The audience response is the goal toward which style must be directed, for "it is not enough to know *what* we ought to say; we must also say it *as* we ought; much help is thus afforded towards producing the right impression of a speech."[56] The "right impression" to which reference is made is the audience response, since Aristotle indicates that of the three factors in speech-making, speaker, subject, and hearer, "it is the last one, the hearer, that determines the speech's end and object."[57] The elements of style are adaptive features which make possible the achievement of the particular end. Again Aristotle says that "style to be good must be clear, as is proved by the fact that speech which fails to convey a plain meaning will fail to do just what speech has to do. It must also be appropriate."[58] In these appeals for perspicuity and appropriateness are to be found the implicative references which substantiate further the thesis enunciated in this section of the paper. A speech qualitatively inferior in perspicuity and appropriateness of style "will fail to do just what speech has to do." And what does speech have to do? Aristotle has given the answer many times in Books I and II and quite frequently in Book III. It seems warranted to say that the speech of which Aristotle conceives must secure a response, and features of style play adaptive functions in the achievement of the end.

Delivery is deemed by Aristotle an unworthy subject of detailed study. However, he admits reference to it on the ground that good delivery enhances the possibility of creating the proper impression in the audience, since delivery affects the intelligibility of the subject matter of a speech.[59] Delivery is thus regarded in the light of its practical significance as a feature of functional adaptation.

The features of rhetorical arrangement are clearly definied in terms of functional utility. If Aristotle wished to treat of rhetoric in terms of stylistic effects, he would have held to a formal division of each speech into a specified number of parts. Instead, he in-

[56] *Ibid.*, 1403b 16.
[57] *Ibid.*, 1358b 1-5.
[58] *Ibid.*, 1404b 1-5.
[59] *Ibid.*, 1404a 10.

dicates that "the only necessary parts of a speech are the Statement and the Argument."[60] Introductions and epilogues may be used as the occasions demand, however. But the primary principle which must guide the speaker is general adaptability of forms to the desired end. The functional value of a particular form must be determined before resorting to its use. The introduction, for example, should be used only where the subject is long or involved.[61] It should not be used merely for purposes of ornamentation since that might affect the realization of the end. The material of the introduction may be "connected or disconnected with the speech itself."[62] Obviously, there is no formal reason for the use of disconnected material in an introduction; the possibility of making the proper impression seems to be the apparent objective, and so Aristotle says the speaker may use any means he chooses to make his hearers receptive.[63]

The use of narration must also be selective since its introduction into political oratory might be somewhat out of place. The value of narrative is determined by the extent to which an audience adjustment may be made through it. In the use of narration the possibilities of securing emotional responses are marked, provided that the speaker is competent in placing himself in the proper light with regard to his audience.[64]

"The duty of the arguments is to attempt demonstrative proofs."[65] In other words, the function of arguments is to produce a change in the hearers; and to augment this change the introduction of interrogations and jests may be judicious.[66]

The epilogue has well-defined functions. Aristotle indicates that in the epilogue

> You must (1) make the audience well-disposed towards yourself and ill-disposed towards your opponent, (2) magnify or minimize the leading facts, (3) excite the required state of emotion in your hearers, and (4) refresh their memories.[67]

[60] *Ibid.*, 1414b 7.
[61] *Ibid.*, 1415a 24.
[62] *Ibid.*, 1415a 7.
[63] *Ibid.*, 1415b 1.
[64] *Ibid.*, 1417b 7.
[65] *Ibid.*, 1417b 21.
[66] *Ibid.*, 1419a 1 and 1419b 2.
[67] *Ibid.*, 1419b 10-13.

These functions have specific reference to audience situations and, therefore, their forms have a multitude of possible variations. So the significant fact in the whole discussion of arrangement and style is the emphasis upon variation of form in order to meet particular situations, and thereby achieve particular ends.

It is to be borne in mind, however, that a complete separation of function from form is quite impossible since the two are closely related features of rhetorical presentation. Elements of form, technically provided for, make possible more satisfactory functional adaptations. Aristotle, recognizing the manifest inter-relationship of the two, is meticulous in pointing out the fact that rhetoric refers to the adaptive services of a practical art rather than to a category of scientific principles drawn from one particular subject. When he indicates that the more "we try to make either dialectic or rhetoric not, what they really are, practical faculties, but sciences, the more we shall inadvertently be destroying their true nature,"[68] he pronounces the principle to which he adheres consistently throughout the *Rhetoric* and to which speech theorists generally, across the twenty odd centuries, have given more or less definite acknowledgment.

V

The conclusions which may be drawn from such a brief study are perhaps tentative at their best. However, the following reflections seem warranted:

First, Aristotle's psychology bears at least two important characteristics which have functional implications. They are: the thorough emphasis upon the biological, and this in turn means an emphasis upon function rather than structure; and the conception of the organism as an integrated whole in which mind and body work toward satisfactory ends.

Second, the *Rhetoric* has many detectable points which are legitimately interpretable in terms of functionalism. When the work is taken as a whole, the prevailing tenor of the material is to the effect that all rhetorical forms are made to serve functional ends. Rhetoric is a practical art, designed to serve the end of social adjustment. On the basis of this interpretation the *Rhetoric* is thoroughly functional.

[68] *Ibid.*, 1359b 12-15.

THE NATIONAL SHAKESPEARE COMPETITION AND MEMORIAL COMPANY OF AMATEURS

EARL E. FLEISCHMAN
University of Michigan

WHEN one reflects upon the general decline of interest in the spoken drama on the part of the general public and the general low level of dramatic fare that is offered by the commercial theatre, one is led to wonder whether our schools and colleges are not missing an opportunity to make an important contribution to the cultural life of the nation in restoring the spoken drama to popular favor. Surely, with the present avidity of interest in all things pertaining to the theatre and the production of drama that is taking the colleges by storm and with all the training resources and facilities that colleges are devoting to the art of producing plays, the nation ought not to lack for those who can provide the best in the spoken drama in all its pristine vigor and freshness.

Though it is true that college communities and those blest with non-professional community theatres have access to the better plays of the world's dramatic literature, yet the players are often inexperienced and disappointing and the production facilities not of the best. And there are many communities that do not have contact with the spoken drama even in this more or less imperfect and unsatisfying form.

The problems is one of providing the communities the best dramas of the past and present in a form that is rich in its artistic perfections and compelling in its audience appeal. How may this be done?

We are not likely to find the solution to this problem coming from the commercial theatre. It is too much concerned with the business of making money and with providing the type of theatrical entertainment that the average citizen will pay for. The type or quality matters little. At least, it is a secondary consideration.

However, it is not necessary to rely upon the commercial theatre at all. We have the producing resources in the amateur theatre. But they are scattered and ineffective. They need to be combined in a cooperative effort.

I am aware of the reluctance of educators to accept the utilitarian, the professional point of view. To be sure, there is a cultural value sufficient in itself for creative activities in the theatre. But must those activities cease when the college years are over?

We are confronted with the curious situation of stimulating a desire on the part of students to participate in the creative arts of the theatre, of developing their talents and providing a means of their exercise in college plays, of getting them all ready for a larger scope of artistic activity in the theatre, and offering them—what? Teaching? The Professional Theatre? The Community Theatre?

What opportunity does teaching provide for the exercise of artistic ability in the theatre? Relatively little. There is too much teaching, with insufficient opportunities for creation.

Though teaching in the field of "educational dramatics" is not without its proper attractions and rewards, for the one who desires an opportunity to *practise* the arts of the theatre, its rather definite limitations are bound to prove a producing group, always the first essential. But it is a group of inferiors, not equals, whereas the ideal theatre has a group of trained and mature artists working in cooperation. The teacher lacks both the challenge to measure up to a high level of artistic productivity around him, and the freedom from responsibility for the training and achievement of novices, which, in the case of teaching, is his first duty.

I do not wish to be understood as minimizing for one instant the importance of teaching. I am merely stating a fact that is attested by the experience of every teacher in this field. For there is no denying the need, among those who have chosen to *teach* rather than to *practise* the arts of the theatre, for an occasional respite from teaching and an opportunity to associate with more mature and experienced people in the production of a play on a professional basis.

Neither the commercial nor the community theatres, as a rule, provide such an opportunity, at least, not one that is attractive and fully satisfying. In the average community theatre, the teacher, well-trained and ready for better things, cannot escape association with the same fumbling ineffectiveness of people who are willing but often unequal to their tasks. In the professional theatre, it is usually impossible to "break in" for a short period. The climb to

the professional theatre is long and hard and few there be that have the tenacity required to even get a toe-hold. And when you get there, its rewards in artistic achievement are notoriously uncertain. Neither the talented young artist looking out upon a career in the theatre from the portals of our colleges, nor the teacher seeking an occasional association with a more professional producing organization can find much in the commercial theatre situation to interest him. The fact is the commercial theatre does not have a ready welcome for the experienced and well-trained amateur. His training counts for naught. He is required to serve a tedious apprenticeship at irksome "general utility bits." No, the commercial theatre has little to offer the college-trained amateur.

Yet, why should he not be given an opportunity to enjoy a wider scope of productive activity suited to his maturing talents? Why not provide our own outlet for the creative talents and energies that are being released and given momentum in our college theatres? Why not furnish a greater incentive to the student with superior abilities to make the most of them?

What is being done in music should make us aware how remiss and laggard we have been in this respect. In music, there are at least two important institutions that furnish young and talented amateurs with greater incentives to achieve and that contribute definitely to the cutural life of the nation in a more universal musical productivity among its young people and a more universal appreciation of music. Mr. A. Atwater Kent, through his sponsoring of the National Radio Competition and Professor Joseph E. Maddy, through his creation of the National High School Orchestra have ushered in a new era in music. Can we not do a similar thing in the art of drama?

It appears that our activities in college dramatics are not tied to a large enough vision. When we are not inspired with the high and holy purpose of "torchbearers," we are too prone to lapse to the equally ineffectual attitude of dilettantes; being amateur or non-professional, does not necessarily mean being either. The truth is we are not *beginning* to provide either the incentives or the outlet for the highest type of artistic work in the theatre. We do not as yet have a program consistent with our aims.

The project here outlined has been conceived as a beginning

of a larger and more extensive program in the non-professional theatre and is dedicated to the following aims:

To promote the cultural interests in college life through a more intimate relation between faculty and students.

To single out the superior students and to give them a favorable environment in which to further develop their latent powers.

To give signal recognition and encouragement to young people who show promise in the fields of the creative arts.

To afford the advantages which travel under wise supervision has as an enrichment of background for the one who wishes to participate in the creative arts.

To bring the students and faculties of American colleges and universities together in a common enterprise that seeks the advancement of culture throughout the United States.

To perpetuate the influence of Shakespeare in our literature and in our life through a non-commercial agency.

To provide artistic productions of Shakespeare's plays by college-trained amateurs whose critical judgments and appreciations have not been spoiled by the traditions or methods of the professional theatre.

To bring about the revival and preservation of an interest in Shakespeare on college campuses everywhere.

The first step in a national competitive selection of a Memorial Company of amateurs is the National Shakespeare Memorial Camp, the chief purpose of which is to bring together a representative group of experienced, college-trained amateurs in a kind of "Forest of Arden," where there is more freedom from the conventional and the purely academic and a better opportunity to work and play together. Here, under able directors and teachers, these talented amateurs may devote themselves to the artistic production of Shakespeare's plays, as a memorial to his genius.

The dramatic activities of the Camp will be organized according to the following plan.

There will be two major productions of Shakespeare during the session, one near the close of the first four weeks, the other near the close of the session. Two distinguished directors in the Community Theatre Field will be brought in as guest directors of these productions.

All the courses of study will be centered in these two productions. During the first two weeks of each four weeks period, the play to be produced will be studied from every angle. Historical, social, and literary backgrounds will be developed. Playwriting courses will take up the study of the particular type of play represented by the play chosen, such as comedy, tragedy, fantasy, and practice-writing in this type will be afforded.

Each student will be free to choose according to the advice and guidance of the Committee of Counselors, the part he wishes particularly to study. He will study voice and diction, reading and interpretation individually with an instructor and in groups assembled according to the scenes of the play. During this period he will gain a flexible mastery of the play, the lines of his particular part, and the interpretation of the character, or characters. Meanwhile, too, the sets and costumes will be constructed from designs and plans sent in by the director.

Then at the end of the two weeks' period the director will arrive and take charge. He will select his cast through the call system, that is, from the recommendations of the staff of instructors he will post on the bulletin board a call for those students who are given the preference. If he is not satisfied he may issue further calls until his cast is complete. Those who are not called will continue working on the play, as understudies, in the technical departments, and in the courses in playwriting and general drama study.

In addition to this regular program, it may be possible to work in one modern comedy as a "fun" show, and also after the regular session to present the best original play written during the summer.

The National Competition for Election to the Memorial Company is the second step. After each annual summer camp, the candidates in attendance are to return to their own colleges for the fall term. This plan permits the college to reap some of the benefits of the summer camp through the enthusiasm and ambitions that its representatives bring back to their own college life, especially the encouragement it will tend to give to other students to develop their creative abilities. It has the further advantage of spreading the news and insuring the future success of the enterprise.

Sometime during the first semester of the college year the Board of Directors of the Summer Camp would announce the particular Play of the Year. The Board would issue a limited number of invitations to those candidates who have proved their superior abilities in the Summer Camp to compete for places in the Memorial Company.

This competition is to have for its purpose the selecting of a well-balanced company for the play chosen. Consequently, each candidate will be invited to compete for a particular part, in which he will be given adequate time to prepare himself during the first semester.

The Competition will be held at some convenient center on a College Campus during the first week of the second semester, or very near that time. The different colleges and universities have the privilege of offering to sponsor the Competition, much as they would a convention.

The successful competitors will form the Memorial Company and after rehearsal as a unit, will go on tour during the second semester. The unsuccessful candidates will return to their own colleges.

The Annual Tour of the Memorial Company is the culmination of the cycle. The tour of the Memorial Company will be in the nature of a travelling college. There will be regular and systematic curricular studies under a small and carefully selected faculty, chosen from the faculties of member institutions.

The following curriculum gives a general idea of what might be the scope of these studies:

The History of English Life and Letters.
The Principles of Literary Criticism.
(with emphasis on dramatic criticism).
Studies in Art Appreciation (Aesthetics).
(Museums along the route of the tour will afford many subjects).
The Psychology of Speech and Language in Literature.
The Interpretation of Poetry.
Acting, Fencing and Gymnastics.
Dalchroze Eurhythmics and Musical Coordination.
Voice and Diction.
Stage Technique.
Production of Plays—Theatre Arts, Business Management.
Stage Direction and Management.

Lighting.
Scene Design—Stage Architecture.
Scene Painting and Decorative Arts.
Furniture, Pottery, Murals, etc.
Costume Design.
Conversation in French, Italian or Spanish.
The History of the Theatre.
Human Relations and Social Behavior.
Play Writing.

A carefully chosen portable library would be carried with the Company and the group would have access to other libraries en route.

Each student's program is to be made up from a choice of these subjects so arranged as to form a balanced unit. A specified number of hours per week are to be devoted to each study. Each day's work will, of course, include a rehearsal and laboratory period in the theatre, either in preparation for a performance or for the addition of a new play to the repertory. The classes will be conducted on trains, in theatres, and regular class-rooms on the campuses visited.

The itinerary of the Memorial Company is to include first of all those colleges and universities that are participating members in the plan. All those institutions that have been eligible to send candidates to the Summer Camp will be privileged to see the Memorial Company on tour.

According to the plan as now conceived, some kind of a financial guarantee as to receipts from performances is to be posted by member institutions. The receipts from performances on the tour are to cover all expenses involved in production of the play and the cost of transportation for the Company. Only the Director, a few members of the faculty, the Wardrobe Mistress and Company Mother, the Business Manager, and the Treasurer would receive salaries.

The aim of the Memorial Company and its Annual tour will *not* be to prepare young actors for a career on the professional stage. The aim is primarily a cultural one. Each member of the Company will have the best possible opportunity under trained guidance to develop his creative abilities in writing, as well as in acting. For one can not fail to be impressed by the fact that Shakespeare, the dramatist, was made possible by his association

as an actor with just such a Company as this one aspires to be. Other arts, of course, will come in for their full share in individual cases.

Most valuable of all, however, will be the broad outlook, the enriched background, the human contacts, the deeper perceptions, the cultural ideals, and the critical judgments that are bound to come from such an experience. Each individual will be better prepared to take his place in the world, whatever that may be. Naturally, a few will want to continue acting and the stage as a career. This would prove of the utmost importance in maintaining high standards in the theatre and should add considerably to the enrichment of the cutural life of the nation.

The plan as outlined here is undoubtedly an ambitious dream, not impossible of fulfillment, yet looking well to the future for its realization. Whether or not it will be possible to interest colleges and universities in an association of this kind remains to be seen. Obviously, many difficulties will be encountered and unforeseen obstacles will have to be overcome. But it is not too much to hope that over a period of years during which a gradual advance is made step by step and increased numbers of friends are won to its support as the plan proves itself in actual practice, the end which seems quite remote at this date will finally be achieved. Until then, the project offers a goal that seems eminently worth striving for and presents a program that is more or less definite means of proceeding toward that goal.

Plans have been under way to attempt a small and unpretentious beginning of the Shakespeare Memorial Camp this year in association with the National High School Orchestra Camp at Interlochen, Michigan. Professor Joseph E. Maddy, Director of the Interlochen camp, offered to extend its facilities to us but difficulties have been encountered in working out the details with the Executive Board. Certain members prefer to hold exclusively to music. As a consequence, the plan of an association with the National High School Orchestra Camp has been abandoned and another location and sponsorship is being sought.

It may prove impossible to obtain a desirable site and the financial backing necessary to inaugurate the camp this year. However, considerable progress has already been made and the temporary Executive Committee, consisting of Daniel L. Quirk,

Jr., P. J. Smith, and the writer will continue to work for the first Shakespeare Memorial Camp. If sufficient interest is manifested and the necessary sponsorship can be found, the attempt will still be made to found the camp this year. At all events, we will proceed with plans for the launching of the project at the earliest possible date.

It is hoped that eventually if and when colleges and universities through their dramatic departments become participating members in the National Memorial Association, each member college and university will nominate and sponsor two candidates for the Camp and will provide scholarships for them.

At the outset, however, it will be necessary to extend the privilege of application for admission to the Camp to all who are qualified amateurs, in a liberal interpretation of that term. These applications will be scrutinized with great care and only those of superior abilities and attractive personal qualities will be accepted.

It is evident that a number of scholarships should be available for those who are worthy young artists and who should have the opportunity that attendance at the Camp affords but who are financially unable to provide themselves with sufficient funds. It is the desire and hope of those working for the Camp to create a fund for this purpose, to be administered by the Executive Council of the Camp. Speech teachers who are interested in providing a greater opportunity for their talented students can render a great service by seeking to find those who can be induced to make scholarship endowments.

The cooperation of Speech teachers is desired in one other specific service. It is planned to require each applicant to have the quality of his voice and diction attested by a Speech teacher. In this way, Speech teachers everywhere may become participating members of this enterprise. Not only will encouragement but the process of selecting those who are best qualified to meet the high standards of the Camp be greatly facilitated.

In conclusion, this is not a privately endowed, commercial venture of a few people. It is the adventure of a non-profit, cooperative association in which all who wish may share alike the responsibilities and benefits. To be successful, it must have the good will and active cooperation of leaders in the field of Speech

Education and of teachers and directors of non-professional dramatics everywhere.

The project has received the heartiest commendation from such men as Professor John Dolman Jr., President of the National Association; Professor J. M. O'Neill, Chairman of the Department of Speech, University of Michigan; Professor E. C. Mabie, Chairman of the Department of Speech, University of Iowa; Mr. Gilmor Brown, Director of the Pasadena Community Playhouse; Mr. Frederic McConnell, Director of the Cleveland Playhouse; Dr. Clarence Stratton, author of Producing in Little Theatres and Theatron; Mr. George Reid Andrews, Executive Director of the Church and Drama League of America, and many others. Members of the National Association, teachers of Speech, and directors of non-professional dramatics everywhere are invited to join in the project to make it truly National.

THE PITCH FACTORS IN SPEECH—A SURVEY

ALFRED R. ROOT
Hamline University

SINCE the middle of the 19th century the precision with which instrumentation could give results made the pitch factor of the human speaking voice most accessible to experimentation. The phonautographs of *Donders* (19)[1] and of *Scott* (111) began three-quarters of a century of fertile investigation with similar and improved apparatus. Empirical descriptions, however, have given a rough, and in some cases, a refined statement of pitch perception.

The present article endeavors to survey the heterogeneous concepts which have been passed from writer to writer and the various descriptions of pitch and pitch changes. The division into I. General, and II. Experimental, is purely arbitrary and cannot be followed with exactness.

I. GENERAL

In 350 B. C. *Aristoxenus* (66) differentiated between speech and song by characterizing the former as continuous pitch move-

[1] Numbers in parenthesis refer to bibliographical numbers at the end of the discussion.

ment and the latter as movement from one stationary pitch to another. This point of view has dominated all subsequent writings, even in the present century.

300 years later *Dionysius* of *Halicarnassus* (99) related music and speech by saying that they differed in degree only and not in kind. The melody of spoken language was compassed by the single interval of the fifth. The pitch in the utterance of a single word was found constantly to change and took the form of a rising, falling, or circumflex movement.

Joshua Steele (127), believing that speech had constituents common to those of music, endeavored to reduce the intonation of speech to musical terms and notation. Following Dionysius of Halicarnassus, Steele was of the opinion that the rises and falls of the voice passed through an interval of three tones and a half.

The next discussion of any great influence was given by *Rush* in his *Philosophy of the Human Voice* (103) which has served as a major influence among the teachers of speech in this country during the nineteenth century. His descriptions were empirically derived and were very exhaustive in their analysis. Believing that most of the constituents of the musical system were employed in speech, although somewhat differently, Rush felt it advisable to adopt musical notations to represent the various functions of the voice. Thus representations of 'concrete' sounds or slides, 'discrete' sounds, 'protracted' sounds, 'concrete' and 'discrete' intervals, skips, scales, 'radical' and 'vanishing' movements were all applied to speech. In addition, an attempt was made to interpret the various intervals, scales, and radical and vanishing movements according to the meaning expressed.

Twenty-two years after Rush's first edition, *Alexander Melville Bell* (9) described spoken sounds as consisting of inflection of greater or lesser extent upwards or downwards from the tone on which they began. The observation of Aristoxenus and Dionysius was followed, namely, that in speaking the voice moves by sweeps over all intervening intervals. Bell believed that the use of a precise system of notation was of little value since speaking could not be fettered to an exact scheme of notation. He made use, however, of a staff of eight lines to denote seven degrees of inflection; that is, the seventh musical intervals of the second, third, fourth, fifth, sixth, and octave. But to him even this staff could not

represent speech tones with accuracy. Like Rush, although to a much lesser degree, he attempted to interpret the various intervals in speech according to the meaning expressed.

Representing the school of elocutionists flourishing during the middle of the nineteenth century, *Mandeville* (67) pointed out that voices, because of organic diversity, occupied different portions of the scale, some being bass, some treble, others tenor, etc. Every voice possessed its relatively high, medium, and low tones, any one of which might be adopted as the prevailing tone of delivery. Variations from the 'key,' that is, from the predominating tone of speaking, consisted of sweeps, bends, slides (upward, downward, waving, and double slide) and closes.

Ellis (24) pointed out the existence of registers among individuals, and continued the notion of indefiniteness and variability in the slides and glides of the voice without definitely intended or perceived intervals or sustained tones. The range of change in speech seldom exceeded a fifth, while in song it generally exceeded an octave and a half. *Klünder* (53) suggested that in falling or rising inflections, the largest perceptible interval was a fourth.

Helmholtz (41) stated that when spoken without feeling, sentences were maintained at a middle pitch. The end of a declarative sentence dropped a fourth from the middle pitch and an interrogative closing rose a fifth from the middle tone. Discourse under excitement and passion become more complex. Regular musical intervals involuntarily recurred although the pitch was not maintained but glided up and down.

A quasi-musical notion of speech was presented by *Merkel* (74). He stated that in the perception of spoken discourse, melodies were heard. There was a lack of definiteness of the beginnings, of intervals, and in the maintenance of a syllable on a note. From a phylogenetic point of view, in the lower stages of development, poetry and song were undifferentiated. Although the pitch in speech was continuously changing, Merkel held that there were musically interpretable portions.

The glide character of the speaking voice was recognized by *Storm* (128) who stated that the gliding of the voice through several notes made an impression upon the ear of "unrefined, mixed, unmusical noise." Speech was quasi-musical in nature since there was an intervallic effect. He said:

> "Everybody sings more or less in his speech; that is, he remains more or less on the tones or forms more or less melodic tonal movements. In the latter case there is a gliding through of a harmonic interval in which the beginning and end of the tonal movement are distinctly heard." (128, p. 205).

Through observation of Norwegian speech, he concluded that Norwegian word-tones were founded on the steps of the third, fifth, seventh, etc. Occasionally there was heard an almost clear tone since most untrained ears perceive a single tone from a glide of a small interval. Storm's observations of Norwegian may not be applicable to other languages since it is well recognized that Scandinavian speech is somewhat musical in nature. A differentiation was made by Storm among French, German, Italian, and Spanish on the basis of higher or lower registers, lesser or greater intervals, and definiteness of intervals.

The Swedish phoneticians, *Lyttkens* and *Wolff* (65), expressed the tonal changes in Swedish in terms of the musical scale and with musical notations, likewise recognizing that differences in the direction and extent of pitch movements materially alter the meaning erpressed.

In his doctoral dissertation, *Passy* (85) followed the traditional discussion of pitch movement by contrasting the definite transition by steps in music with the gliding of speech, the latter rising or falling more or less rapidly but always by imperceptible degrees. The term 'interval was used to designate the distance between the boundaries of the slide or glide. Falling, rising, circumflex, inverted circumflex and combinations of these are the mode of pitch movement in speech. Intonation patterns, he believed, were utilized by the linguistic group for the expression of various meanings.

The traditional view was also followed by *Vietor* (135) who described German in the same general manner as Passy did for French. Uniform pitch occurs especially in the short vowels and may be high, medium, or low.

A somewhat musical interpretation of speech melody and tonal movements was held by *Wundt* (142), although he considered the melody in speech little more than a threshold to music. Glide tones, in his observations, ran from one recognizable pitch to another, thus forming definite intervals. Like Merkel, he assigned

to each voiced sound in a syllable a definite pitch, but the syllable as a whole was perceived with the pitch of the vowel. Wundt believed that the difficulty in recognizing speech intervals was due principally to an exceedingly inaccurate concept concerning the size of intervals. The recognition of intervals in speech increased as the intervals approached known musical ones. For the German speech, the two musically inferior intervals of the fourth and second played the principal role. Following a theory current in his day (see Herbert Spencer), Wundt, with others, ascribed a 'contrast-antithesis' to the meaning expressed in various patterns of tonal movement in speech.

A difference between the physical measurements of pitch and the resultant sound that is heard was pointed out by *Rousselot.* (102) He held the ear tended to hear those pitches which were most familiar or to which the ear had been more habituated. The melody in speech was changed according to the arrangement of vowels and consonants, the latter generally being lower in pitch than the vowels (101).

One of the largest contributions to a discussion of speech melody has been made by *Sievers.* In speaking, the voice moves continuously up and down within the same syllable. The various notes which are used to designate the pitch of the syllable are merely points between which the voice glides. (123) Considerable use is made of musical concepts such as melody and interval. (125) The nature of the final consonant adds an influence to the direction of the cadence, a voiced consonant permitting a lowering and a voiceless consonant permitting a slight rise in pitch. With reference to speech verse, Sievers speaks of the mood of the poet which exerts an influence upon the selection of words to fit into an imagined scheme of melodic expression. Sievers believes that there are certain points in the free gliding of speech that serve as the principal carriers of the melodic impression.

Saran (106) interprets speech melody according to a theory of dominant syllabic crests which consist of the strongly intoned vowels and voice consonants. These the uninitiated hearer apprehends like spots of more or less extension and brightness. Between these dominant crests are found the pauses and voiceless sounds which are perceived as a dull, unsorted mass in the background. Each voiced sound, each syllable and word has a more

or less noticeable tonal movement. Intervals cannot be ascribed to speech since the more painstakingly one listens, the easier it is to observe and the longer grow the general tone series which one hears.

Jesperson (48), as practically all of the experimental phoneticians have reiterated, points out that pitch and stress rise together, although a strong syllable may have a low tone and a weak syllable a high tone. The term 'interval' is used to indicate extent of movement although the reader is not certain just what meaning is to be conveyed by it.

A purely musico-aesthetic point of view is held by *Forchhammer* (26) who maintains that tonal movements are governed by pure musical laws and indicate definite major and minor tonal characteristics, and that previously heard melodies exert a strong influence upon the melody of speech. *Peters* (92) believes that Forchhammer may have arrived at his view from the fact that he was given a musical inheritance of several generations back, and also from the national peculiarities of the Danish speech.

Barth (6) likewise has a musical interpretation. The human voice in speaking moves as a whole in musical intervals. These intervals form a part of a C major chord and generally consist of thirds and fifths.

Sweet (131), *Roudet* (100), *Quiehl* (97), and *Klinghardt* and *de Fourmestraux* (52) follow the customary differentiation between music and speech, as do *Jones* (49), *Palmer* (83), *Grant* and *Robson* (32), and *Armfield* (1).

Konow (see 72, p. 136) has pointed out that in primitive monosyllabic words, the pitch begins low and rises about a third or a fourth. If the word was disyllabic in the old Nordic, it began with a high tone and lowered a third, then rose a fourth.

An excellent discussion concerning the relationship of singing to speaking has been published by *Stumpf* (130). He recognizes that the nature of speech is different from music only in degree. The difference rests mainly on the fact that speech utilizes steady tonal changes in manifold ways while music principally uses discrete tonal steps. In speech, where leap-like changes are used, it makes little difference whether they are a fourth of a tone higher or lower, whereas musical effects are dependent upon definite intervals and definite tones, small deviations from which are felt as

disagreeable. Ordinary speech partakes more of noises, has less distinctness of pitch in unstressed syllables, and greater freedom of time and progression. Stumpf recognizes the possibility of utilizing and hearing definite intervals such as in certain exclamations and interjections. But these, by definition, are music, for he says that when the intervals come so far into consciousness that the specific feeling of the interval of the fourth, etc. is created, singing is effected. Although the perception of definite points of limit in a tonal movement to which the judgment of interval can be referred may be possible in speech, there still remains the forceful impression of a change of pitch in a definite direction, of a brightening or dulling, rising or lowering, which impresions are different from the musical qualities which definite tones present.

A similar point of view has been expressed by *Köhler* (56) in saying that discrete steps and definite pitches or tones are nonexistent in speech. Pheonomenologically speaking, with definiteness of tone has arisen musical quality which is absent in gliding speech movements.

A number of observations have been made relative to word meanings and changes in patterns of intonation. Rush, for example, stated that 'thoughtive' or unexcited states of mind were expressed through the simple rise and fall and shorter waves of the interval of the second; that 'inter-thoughtive or admirative and reverentive states' were expressed through the semitone, the second, and occasionally the third and fifth; and that the 'passionate or excited state' through the semitone and wider rising and falling intervals (103, p. 165). Other writers have followed after Rush in much the same way.

Other languages, especially oriental and primitive dialects have been characterized by the number of 'tone classes.' The use of 'tonal accents' for the expression of 'word meanings' was early pointed out for certain of the Chinese and Indo-Chinese dialects by *Schott* (109), *Max Müller* (81), *Lepsius* (62), *Ellis* (25), *Bastian* (7), *Michel* (80), and *Edkins* (21). Five so-called 'tone classes' for the Mandarin and Nankin dialects expressive of different meanings and attitudes with the essentially same root were pointed out. *Hahn* (34), described the three tonal classes in the Hottentot speech by means of which words with the same root may have their meaning altered. A similar description was given

for the Mande speech of West Africa. *Max Müller* (82), has pointed out that in Cochin-Chinese the word "dai" could be employed to designate twenty-two different objects, according to the notes on which they were uttered.

Rousselot has pointed out the variations intonation patterns with the same word root to express variations of meaning through illustrations of the speech of Japanese, of the African dialect "Igbo" and of Chinese of the region of Shanghai.

More recently *Dornan* (20) in a description of the Tati Bushman pointed out that their language called *Sesarwa* contains three tones by which words of similar sound but different meanings are distinguished. The list of sounds includes four clicks. The author collected a vocabulary of two thousand words in making his study. *Jones* has also pointed out the relationship of meaning and tonal accent in the speech of certain oriental peoples.

II. EXPERIMENTAL

The experimental investigations have largely consisted of instrumental approaches in the description of pitch movement. A relatively small amount of work has been done in the perception of pitch, tonal movement, and speech melody.

General Nature of Pitch Movement. The careful observation of perceived speech tones by such phoneticians as *Jones* (49 & 50), *Armstrong* and *Ward* (2), *Armfield* (1), *Klinghardt* (52), *Ripman* (98), *Sievers* (123), *Sweet* (131), and others has contributed to the weight of opinion with reference to the glide character of speech tones and to the general division into rising, falling, circumflex, and inverted circumflex movements.

The methods of instrumentation used by *Schwann* and *Pringsheim* (110), *Pipping* (95), *Meyer* (79), *Rousselot* (101), *Vietor* (135), *Marichelle* (68), *Krueger* (57), *Scripture* (115 & 118), *Merry* (76), *Metfessel* (77), and a large number of others have given an objective verification for the gliding quality of speech syllables in English and European languages. Physical descriptions have also shown wide variations in the extent of slides as well as in the form or nature of pitch progression within syllables and words.

Simon's (126) measurements of consecutive wave-lengths of various instruments and the singing voice have shown fluctuations of pitch of greater or lesser extent from wave to wave, a finding

which has also been made for the speaking voice by Metfessel, *Gray* (33), and *Travis* (132), the latter having shown marked differences in pitch variations from wave to wave under certain emotional situations in both normal and pathological speech.

One of the first objective physical statements of periodicities in pitch fluctuations is found in *Forchhammer's* (27) treatment of "Die kleinen, unwillkürlichen Tonhöhenbewegungen" which he has called the 'vibrato' and which he defines as a "certain trembling of the voice effected by fright, faintness, oppression, or also ecstasy and enthusiasm." In the three graphs which he presents, these periodicities are at the rate of ten per second. Following the work of *Schoen* (108), *Herzberg* (44), Kwalwasser (61), and Metfessel (78) in music, Gray made a photographic study of the vibrato in speech. He concluded from the photographic study of 213 records taken from 23 subjects that the vibrato occurred mainly in emotional speech with both sustained and inflectional tones, varying in rate from 4.4 to 10 per second, and in extent from one-fourth to two full tones. Travis (134), in a study of the stutterer's voice, concluded that the vibrato does not occur during normal unemotional conversational speech but does occur in a certain number of the stutterer's tones. His studies show various degrees of tonal fixation and periodicities in pitch change.

Functional relationships between frequency changes of the speaking voice and other fluctuations have been attempted. For example, *Travis* (133) has shown a marked synochronism between movements of the larynx and movements of the breathing apparatus. *Fugita* (29) has studied the cardio-pneumatic influence of involuntary variations in the voice. He found that changes in air pressure within the larynx due to heart action produces a rhythmical fluctuations of intensity as well as of frequency, which were perceptible by the unaided ear.

The pitch change in vowels has been variously investigated. *Klünder* (54) and *Martens* (69) found that the pitch change takes the form of a circumflex. This was corroborated by *Popovici* (96), von *Gauthiot* (30), and *Ivcovitch* (47). Martens found that the average changes of pitch within single vowels in spoken words were two to three intervals of the octave, and that the nature of the rising and falling movements varied considerably. Meyer reported that stressed vowels took a circumflex form and unstressed

vowels a falling pitch movement. Spoken vowels contained a gliding, constantly moving character of tone whereas sung vowels were relatively sustained.

Martens, however, did not observe everything that was evident from his wave-length readings of the vowels studied. From his published protocol of consecutive wave-lengths, there are indicated the following tendencies which have considerable significance.

(1) There are changes of frequency within vowels of greater or lesser extent with variations in the total pattern of pitch movement.

(2) Certain vowels have a sustained pitch with the exception of a quick rise or fall toward or away from the sustained level.[2]

(3) The progression or change of frequency from wave to wave is in some instances regular and in other cases very irregular.[3] This roughness or irregularity in change of pitch seems characteristic of the individual speaker since in Marten's protocol, the person that evinced roughness in progression in one vowel tended to evince it in the other vowels cited. Marten's failed to make note of this tendency in his own material.

The influence of consonants and vowels upon the physical and perceived pitch of the syllable has also been investigated.[4] *Sacia* and *Beck* (104) have furnished indirect evidence from a physical point of view through an analysis of the relative power of various speech sounds. Thus the relative power of the voiced fricative "v" and the vowel "ɔ" as in "talk" bears the relation of 1:1870. Support is thus given the proposition held by phoneticians that the vowels are the principal carriers of pitch. *Hentrich* (42) has pointed out that consonants may participate in the tonal movement in a principal or subordinate role, or may operate

[2] Cf. Number 1, "er" as in Vat*er;* Number 3, "a" as in V*a*ter; *et al* in Marten's protocol as cited.

[3] For a verification of the conclusion under (3), reference may be made to Number 2, "u" as in M*u*tter; Number 8, "er" as in Vat*er* and "u" as in M*u*tter. Characteristic irregularity or roughness in progression of pitch is evinced by Numbers 8, 9, 10, and 13 in Marten's protocol.

[4] The investigations of formants as pitch constants in the various speech sounds has not been included in the present summary although it is pertinent to a discussion of clang quality and its influence on the entire perception of speech.

to influence the pitch of the syllable or the adjacent vowels. Summarizing the work of Rousselot (102), *Waiblinger* (138), *Ekblom* (23), Meyer, *Hermann* (43), *Weiss, Garten,* and *Struycken,* he has pointed out that voiced consonants partake of the tonal movement and that voiced and voiceless consonants influence the pitch of the adjacent portions of neighboring vowels in a somewhat uncertain manner. *Chlumsky* (14 & 15) concluded that the influence of consonants upon the pitch movements of vowels was practically nil.

The method of progression of pitch from syllable to syllable has, in general, been shown to be by slides, although it has been recognized that these gliding syllables occupy relative positions upon a pitch scale.[5]

Three-tone and five-tone dialects have been reported by a vast number of observers for certain Oriental and African languages, the progression being, in general, by tonal steps. Waiblinger (136), in investigating certain African dialects, pointed out that for 'Nama,' there are three definite tonal steps upon which words may be spoken. The exactness of pitch is indispensable to the dialect in conveying precision in meaning. The difference between lowest and highest tones is an octave, that between low and middle tones a fourth, and between middle and high tones a fifth. Progression from one syllable to another is by steps. Peters (92) believes that he has found a progression by definite steps in an African dialect which produce a pure intervallic effect as in music.

In studying variations in intonation pattern of various German dialects, *Waiblinger* (139) concluded that differences were largely a result of differences in temperament of the people.

General tonal movement throughout the course of a sentence has also been studied. In this aspect of speech melody or intonation, the basic differentium between various linguistic groups has been made. Jones (49 & 51), for example, has pointed out linguistic differences on this basis. Description of many dialects by themselves has also been made. The assimilation or dissimilation of tones in word groups of 'Duala' has been described by *Meinhof*

[5] *Cf.*, for example, the original material of Krueger (57, 58, 59, and 60), Scripture (112 and 113), and Merry, which is representative of most all of the instrumental work.

(72) who has pointed out the rules which seem operative in the changes of the pitch of words when grouped in various ways.

From recent researches, Peters (94) holds the view that there are two general speech melodic systems: a western system with a strong inclination toward a rising intonation, and an eastern system with a predominantly falling tendency. There are characteristic tendencies in the method of respiration, the former system being strongly abdominal while the latter is characteristically thoracic.

From an investigation of seven congenitally deaf patients of the Hamburg Institute for the Deaf, *Schär* (107) concluded that the pitch movement in the discourse of the deaf was not unlike that of normal individuals; that the speech of these subjects had a tendency to aim at definite pitch patterns peculiar to them; that both in range and form of movement, the intonation was similar to normal persons studied. Similar conclusions in this particular have been reported by *Isserlin* (46), *Göpfert* (31), and *Auerbach* (3), the agreement in specific results increasing according to agreement in the method of reading the frequency of the tones recorded.

The speech of New Guinea is reported by *Dempwolff* (18) to possess a tonal movement whose beginning in a sentence rises rapidly, remains on a level for a long period, and finally falls quite low. *Fu Liu* (27) has reported the experimental results on tonal movement in Chinese.

The graphs of *Weaver* (141) for normal individuals, and of Göpfert show a tendency for the pitch movements to rise away from and fall back toward a base pitch. *Selmer* (122) has investigated the 'musical accent' in Norwegian differentiating six phases in the pitch movement of a single syllable and describing the sentence melody in considerable detail in terms of these six phases.

Interpretation of Pitch Movements or Intonation Patterns according to Meaning. Experimental verification has been attempted with reference to the variations in tonal movement and the meaning expressed or represented, a subject which has been discussed for hundreds of years. Waiblinger (136) has shown that pitch level in certain African dialects is an essential part of representative speech. Thus "a" spoken at different levels or

inflections might mean "to drink," "to weep," or "yes." The same has been done for many Oriental and African dialects. In European languages, it is of little consequence in what register the word is spoken except to indicate the temperament of the individual. Meaning, in the sense of affirmation, questions, exclamations, and the like, has been vigorously attacked by Scripture (114, 115, 117), Peters (90), *Heinitz* (39), *Calzia* (13), Dempwolff (18), *Bröring* (11), and others for various dialects of the world. Differences in methods of investigation and reporting have made it impossible to compare various linguistic groups to ascertain what characteristics, if any, are possessed in common in this particular.

Of equal stress has been the experimental study of mood, temperament, and emotion in relation to tonal movement. Studies of German, English, French, Ewe, Hottentot, Duala, and other African and South Sea dialects have been made. The common notion that mood in all languages is expressed in grossly similar tonal movements has been shown by Meinhof (72) to be false. As in general psychological investigations, the description of emotional expression through variations in tonal movements of the voice has lacked uniformity in results and has been beset with multifarious difficulties, especially in experimental investigations.[6] The same holds true with reference to pathological disturbances, the investigation of which is represented by the researches of Scripture, of *Travis* (134), and Papals (84).

Inflectional Richness of Speech. The gross range of pitch used in speaking both in normal and pathological hearing has been somewhat investigated.[7] *Eggert* (22), Göpfert, and Weaver endeavored to get a comparative measure of inflectional richness. Eggert and Göpfert took the average frequency for each 1/10 second period and, as a measure of inflection, used the total pitch range and the arithmetic mean of all the deviations of the frequency of each 1/10 second period from the lowest frequency of the phrase studied. Thus, the narrower the pitch range and the smaller the mean of the deviations, the poorer was the speech-melody or inflection. Conclusions were given for normal, patho-

[6] See, for example, Peters (90), Meinhof (73), Calzia (13), Scripture (112 and 113), and *Zemen* (143).

[7] See also Auerbach (3), *Barth* (5), Dempwolff (18), Isserlin (46), Schär (107), and Selmer (122).

logical, and organically defective cases. Weaver studied the control of vocal pitch, memory for pitch, and the character and amount of inflectional modulation in the utterance of a selected bit of verse. Taking the frequency for each 1/20 second period, he calculated the average pitch, average deviation, and probable errors, together with curve area of his graphs as a measure of inflectional modulation. The difficulty of getting an acceptable measure of comparison between positions on the frequency scale, rather than in terms of absolute frequencies, has made it difficult for Eggert, Göpfert, and Weaver to effect acceptable conclusions.

In addition to studies in patterns of tone movement, investigations in richness of inflection have been concerned with (1) general level of pitch or register used, (2) degree of change of variety, (3) total possible range, and (4) range of successive pitch change.

Observations upon the registers of male and female voices have repeatedly been made by writers from the early Greek rhetoricians down to the present. On the basis of more recent instrumental descriptions, it has been suggested that in general the average frequency of adult male voices was around 150 d. v., and that for adult female voices about an octave higher. Empirical descriptions have pointed out that the pitch level for a given individual changes from year to year, following a curve which characterizes other functions. In childhood the register is high, decreased in adolescence, reaching its lowest point in middle age, and is raised again as one becomes older. Likewise grosser emotional states all have a pitch level as well as the nature of inflection.

Relationship of Speech to Music or Musical Peculiarities in Speech. Waiblinger (140) investigated this problem by means of gramophone records for "'Nama', 'Ewe,' and 'Yaunde' as well as for certain European languages. In the former group, the tonal progression was found to be closely connected to that in primitive song. In the German, Italian, etc., the so-called 'sentence-tone' languages, the melody of song was originally connected with the melody of speech, the latter having developed to greater freedom. In a graphic study of speech curves of 'Ewe' speech, Peters (92) noted a decided musical character due to the almost level direction of some tones which, when heard for the first tine, closely resembled primitive song. A sort of intervallic effect was

utilized and conscious or intended musical graduations of pitch were present.

Relationship of stress and pitch. The differences which investigators have reported between music and speech have largely resulted from loose methods of observation and failure to use the same method for both. It has been shown by most of the investigators that greater amplitude of the sound waves is generally accompanied by higher pitch, when speech is studied physically.[8] The difficulties attendant upon measurement of intensity through amplitude of the recorded waves, when several resonance regions were present in practically all of the recording devices used, are obvious. *Streim* (129) has investigated the influence of aspirated, strong, and soft initiation and cessation of phonation upon the pitch movements of a speech sound, and has reported that strong initiation and cessation were characterized by a rise in tone, aspirated initiation and cessation by a fall in tone, and soft initiation and cessation in part by a lowering and in part by an unchanging pitch. On the other hand, Scripture (113) has pointed out the phenomenon of rising pitch with a decreasing intensity, as in fading tuning forks.

It is a matter of observation among many scientists that with an increase of pressure upon any wind instrument up to a certain point there is a change of frequency, sometimes consisting of a jump of an octave. *Bhargasa* and *Ghosh* (8) have shown that experimental data for the physical phenomena at the mouth of an organ pipe are wanting. They present some significant quantitative results obtained by use of the phonodeik which shows the precise relationship between pitch and pressure. *Lunn* (64) assumes that there is a kinetic stiffness of the air jet at the lip which in turn accelerates or diminishes the frequency of the sound wave when the pressure is increased or diminished. The effect of pressure on the pitch has been indirectly studied by *Love* and *Dawson* working with Stern variators and organ pipes connected to a water manometer. They discover by means of a Raleigh resonator that the intensity of sound varied directly with the pressure and that pitch rose with pressure, requiring larger volumes of the resonator.

[8] See *Pernot* (88), Merry, and Metfessel (77), although Daus (16) reported a somewhat different tendency in French intonation.

Many other mechanical analogies to the action of the diaphragm in creating, sustaining, and altering pressure against the rima glottidis have been made and the observations of a number of investigators on relationship between pressure and pitch have been made to point out the function that the diaphragm might serve in pitch changes.

Influence of external sounds upon speech melody. Baglioni (4) has shown that the melody of speech is greatly influenced by sounds which the individual hears. A study of environmental influences and individual differences in tonal movements is, however, greatly beset with difficulties which rendered little experimentation possible. Along with studies on the influence of external sounds upon speech melody should go Peter's study (91) concerning the influence upon the speaking voice of the major and minor signals as devised by Sievers.

Studies in Speech melody Intonation. There is a vast literature reporting descriptions of melody through instrumentation and through perception. Many comparative studies of various linguistic groups and of the melody of verse have been made perceptually. Among this group are the studies of Daniel Jones, Zumsteeg, Noel-Armfield, Klinghardt, Bell, Sweet, Barth, and Sievers. Instrumentation likewise has been used for the same problems. Representative studies are those of Heinitz, Berensohn, Scripture and Calzia.

Peter's Experiment. (93) This is a very important investigation in which speech melody was studied from a perceptual point of view. Statements of general relationship between perceptual pitch patterns and the physical frequency patterns of the speech material used were made. The perception of dominant pitch, of direction and extension, of tonal movement, was reported. The influence of speech habits and affective attitudes of the *O*s upon perception was noted and a rather extensive discussion of musicality presented. Finally, Peters discusses the role of various components of the total voice clang in the perception of speech melody.

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THE FIELD OF THE STUDY AND TEACHING OF SPEECH*

(Structurally, from the Viewpoint of the University Curriculum)

W. ARTHUR CABLE
University of Arizona

FUNCTIONAL ASPECTS OR PHASES

Utilitarian | Artistic | Literary | Scientific | Historical | Pedagogical

FUNDAMENTALS

The Principles of Speech
Voice, Body, and Diction in Speech
Contemporary Grammar and Usage

ORIGINAL SPEAKING	ORAL INTERPRETATION	DRAMATICS	SPEECH SCIENCES
Group 1. Conversation and Group Discussion	*Group 1. Interpretation*	*Group 1. Fundamentals*	*Group 1. Psychology of Speech*
Group 2. Business Speech	Principles of Oral Reading	Dramatic Production	Attention
Conference Speaking	Types of Literature for Oral Interpretation (Survey)	*Group 2. Acting*	The Thought Processes in Speech
The Oral Report	Descriptive and Didactic Literature	Pantomime	Speech and the Psychology of Learning
The Sales Talk	Bible and Hymn Reading	Dramatic Soliloquy	Genetic Psychology of Speech
Group 3. Public Speaking	Dramatic Narrative	Multiple-Character Plays	Social Psychology of Speech
Speech Composition	The Speaking of English Verse	*Group 3. Stagecraft*	Physiological Psychology of Speech
Extempore Speaking	Lyric Poetry	Scenic Design and Construction	Psychology of Persuasian in Speech
Forms of Public Address	Browning and the Dramatic Monologue	Stage Lighting	Personality Education
The Expository Talk	Dialogue Interpretation	Stage Devices and Effects	
The Entertainment Speech	Cuttings from Plays and Prose Fiction	Costuming	*Group 2. Voice Science*
Persuasion in Public Address	Shakespearean Interpretation	Make-Up	Vocal Physiology
History of Oratory		*Group 4. Directing*	[illegible] of Speech
Intercollegiate Oratory		Educational Dramatics	
Pulpit Oratory		Directing	
		The High-School Play	
		Children's Plays	
		The One-Act Play	

Debate

Principles of Debate
Logical Theory
Argumentative Speaking
Intercollegiate Debate
Oratory of the Bar
Readings in Argumentation

Group 6. Parliamentary Law

Group 7. Seminar Group

Rhetoric and Oratory
Argumentation and Debate
Research
Thesis

Interpretation

Story-Telling
Book Reviews—Fiction, Biography
Humanistic Literature
Repertoire

Group 4. Impersonation

Group 5. Seminar Group

Seminar in Interpretation
Research
Thesis

The Long Play

Group 6. Puppetry

Group 1. Pageantry

Group 8. Drama and the Theatre

History of Drama and the Theatre
Types of Dramatic Literature
Early English Drama
The Elizabethan Drama
Shakespearean Drama
World Drama
Contemporary Drama
The Contemporary Theatre

Group 9. Seminar Group

Dramatic Production
Drama, Playwright, and Actor
Research
Thesis

Para-Vocal physiology (physiology of the skeletal, muscular, nervous and visceral systems, etc.)
Bio-chemistry of Speech

Group 4. Phonetics

Elementary Phonetics and Pronunciation
History of Linguistic Change
Comparative Phonetics
Experimental Phonetics

Group 5. Speech Correction

Nomenclature, Case History, and Diagnosis
Functional Speech Correction
Organic Speech Correction
Pathological Speech Correction

Group 6. Seminar Group

Psychology of Speech
Voice Science
Para-Vocal Physiology of Speech
Phonetics
Speech Correction
Research Thesis

THE TEACHING (PEDAGOGY) OF SPEECH

Speech Education
Grade School Supervision and Teaching of Speech
Speech in the Secondary School
College Teaching of Speech
Practice Teaching
Seminar in the Pedagogy of Speech
Research
Thesis

* Presented as part of the author's presidential address at the First Convention of the Western Association of Teachers of Speech.

AN EXPERIMENTAL STUDY OF INDIVIDUAL VOCAL QUALITY

F. LINCOLN P. HOLMES
University of Minnesota

WHEN one considers individual vocal quality, he must remember that the human voice is an acoustical apparatus governed by the same laws that apply to musical instruments. One must remember, also, that

> "Sound is a disturbance in an elastic medium, of such a nature that when it falls upon the ear it is capable of exciting the auditory nerve."[1]

The vocal instrument makes use of the air in the respiratory tract, the resonating cavities which enclose that air, and the valve located in the larynx.

Experimental phoneticians who have studied the nature of vocal quality have been divided, for the most part, into two groups: the supporters of the "cavity tone," or "puff" theory, represented by such names as Willis, Herrmann, and Scripture; and the adherents of the "harmonic overtone" theory, including such authorities as Wheatstone, Helmholtz, and Miller. These two groups split on the issue: Is the larynx tone similar to a string tone? i. e., is it made up of a fundamental and its harmonic overtones? The first group say, "No!" The second say, "Yes!" This controversy must be considered in considering individual vocal quality.

Investigators have apparently overlooked the fact that there are in general two kinds of sound-producing mechanisms, although the sounds produced are similar in that they are "disturbances in an elastic medium." These two types of sound producers are: (1) The "beater," and (2) The "interrupter." The "beater" sets up the disturbance in the air by beating upon adjacent air particles. When this beating is periodic due to the rhythmic application of energy or to the natural resiliency of the "beating body, the sound is recognized as a tone; but when it is irregular, it is called noise. The "interrupter" depends for its energy upon a

[1] SPINNEY, L. S. A Textbook of Physics. Macmillan Co. N. Y. 1927. p. 453.

column of air in motion. When any structure or passage-way interrupts this column of air momentarily, this interruption serves to break up the column of air into segments and to cause disturbances called sound. The momentary stopping of the movement of the air column brings about a greater density in the column of air which breaks through, over, or around, the barrier interposed. However, if the barrier did no more than break up the column of air into segments that would be sufficient to establish the disturbed condition in the air. This fact is attested by the functioning of the "puff" siren.

Is the structure of the larynx such that it can act as a sound-producing mechanism of the "beater" type? If it is, from whence comes the source of the energy which sets the "membranous tongues" into action? The only source of energy in the vocal mechanism is the column of air being driven from the lungs by the relaxing diaphragm and other respiratory muscles. The vocal folds act merely as an interrupting mechanism which serves to break the column of air into periodic segments. The resiliency of the laryngeal structures is responsible for the periodic nature of the interruption.

This reasoning supports the "cavity tone" or "puff" theory. Each vowel sound is a combination of characteristic frequencies determined by the shape, length, coupling, and opening outward, of the respiratory cavities. The "puff" of air released by the glottis sets the air particles in the cavities into oscillation, and these oscillations take on the characteristic frequency of those cavities. The air particles are disturbed as many times per second as there are "puffs" from the glottis. The vowels are certain to be more musical if the frequency of the cavities is a multiple of the frequency of the larynx tone. This is a factor responsible for the quality of musical sounds. Flexibility of the muscular walls of the respiratory cavities will promote this integral relationship. Good vowel quality, hence good vocal quality, must depend upon this harmonic relationship between the larynx tone and the characteristic frequencies of the vowel sounds.

In making this study the experimenter sought to avoid the possible errors present in the mathematical analysis of vowel sounds. For this reason an adjustable cylindrical resonator 86 cm. long with a diameter of ten centimeters, mounted horizontally,

was used. The closed end of this resonator was a movable piston head mounted on a 3/8 inch tube as a piston rod to which the experimenter attached stethescope binaurals which permitted observation of the reinforcements taking place in the resonator. The length of the resonator was changed by turning a threaded rod which shifted back and forth a device attached to the piston rod. Since the subjective method of determining the relative intensities of the sound reinforced was inaccurate, the resonator was equipped with a Rayleigh Disc. Both Mr. Norris of the Burgess Laboratory and Dr. Terry of the Physics Department advised the use of this apparatus.[2] The apparatus consisted of a very thin mica disc suspended from a strand of material offering little resistance,—a human hair ten centimeters long. The disc, one-quarter inch less in diameter than the tube, was hung at an angle of 45 degrees to the bore, just within the open end of the resonator. A brass housing, perpendicular to the tube, protected the suspending strand. An opening in the housing just above the resonator permitted the mounting of a ½ inch mirror constituting part of the optical lever, by means of which the movement of the disc when the resonator reinforced a sound was indicated. A cardboard housing protected the opening in the housing from air currents and carried a millimeter scale upon which the light beam fell. The disc swung on its vertical axis to block the tube when a sound was reinforced. The open end of the resonator was covered with two thicknessees of coarse cloth to exclude air currents.

An electrically driven fork of 512 d. v. was used in the calibration of the resonator. Regardless of the cloth covering and the disc hanging in the tube, the frequency of the resonator was found to conform to the regular formula for cylindrical resonators longer than their cross-section—i. e., $\lambda = 4\ (L + .88 \times \text{Diameter})$. The fact that a closed resonator responds only to the fundamental and its odd-numbered overtones, emphasized during calibration, made possible a more accurate study of the speech sounds of an individual by the use of tables of frequencies to which various lengths of the resonator would respond. The tables used in the study were composed of the fundamental and its odd-numbered overtones for four lengths of the resonator:

[2] Burgess Laboratory, Madison, Wisconsin and Physics Department, University of Wisconsin.

85.5	cm.	with	a	frequency	of	97.76	d. v.
80.72	cm.	"	"	"	"	102.4	d. v.
70.5	cm.	"	"	"	"	115	d. v.
39.65	cm.	"	"	"	"	200	d. v.

The odd-numbered multiples of these four fundamentals gave the following frequencies:

293.3	512	805	1025	1270.9	1495	1740.8	2200
307.2	600	879.8	1075.4	1331.2	1536	1800	2415
345	684	921.6	1126.4	1400	1662	1853	2600
488.8	716.8	1000	1265	1466.4	1725	1955	

The frequencies for each length of the resonator were divided by 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, giving respectively the frequencies which would produce the frequencies to which the resonator would respond as 2nd, 3rd, 4th, 5th, ... 12th, 13th harmonic partials. With this aid the experimenter almost always had a definite clue for determining the frequency to which the resonator was responding when the vowel was intoned at a known pitch.

Extensive trial and error experiment indicated that the best available method of obtaining records of individual speech sounds was to have them intoned near the open end of the resonator. To determine the pitch at which the sounds were intoned records were made on kymograph paper with a Stoelting voice tambour. A Jaquet timer set at fifth-second intervals provided a parallel time line. The subject was seated facing the closed end of the resonator with his mouth on the level of and ten centimeters to the left of the open end of the resonator. In each case the first sound used was [o]. The subject was asked to find the lowest pitch at which he could arouse movement from the beam of light on the scale. When this pitch was located, he was asked to take a deep breath, place a mouthpiece over his face, and intone the vowel at that pitch. Upon the signal "All right!" he removed the mouthpiece and placed his mouth in the predetermined position ten centimeters from the open end of the resonator continuing to intone the vowel until he was out of breath or until another signal was given. During the period the mouthpiece was over the face the experimenter made the pitch record. The movement, in centimeters, of the light along the scale was recorded on the paper bearing the experimental data. When the pitch record was counted, it was registered on the data paper according to its symbol. As many pitches as rein-

forcement could be found for were recorded for each of the following sixteen sounds: [o], [u], [i], [ɪ], [e], [æ], [ɑ], [ə], [ʊ], [ʌ], [ɜ:], [ə], [m], [n], [ŋ], [l].[3]

Usually one half of these sounds could be recorded in a fifty minute period for one length of the resonator for one subject.

In order to have a measure against which the experimental data concerning individual vocal quality could be checked, a Subjective Criterion of Individual Vocal Quality for the ten subjects used in the study was developed by having students in Speech I and Speech II rate the various voices on the basis of their pleasantness. The groups made their ratings separately. Each member of the groups was asked to rate the ten voices on a 50 to 90 scale and not to give any two people the same score. A Rating Sheet provided space for three trial ratings, one to be made after each set of sounds. The three sets were: (1) The vowels used in the experiment; (2) the same vowels preceded by [m]; (3) the same vowels preceded by [l]. The subjects were concealed behind a curtain and were known to the rating groups by number. After the ratings were made, the rating group was given the Seashore Consonance Test. The experimenter used this as a check on the relative abilities of the members of the groups. It was little needed since the coefficients of correlation for the two groups for the ratings made by those above the median in the test compared with the ratings given by those below the median were .984 and .967 respectively for Speech I and Speech II. The coefficient of correlation between the ratings given by the two speech groups was .866. Because of this relatively high agreement the ratings were combined without any attempt at weighting. Comparisons made between sections of the rating groups gave the following coefficients of correlation: Men with women $.9769 \pm .01$ for Speech I and $.8885 \pm .0448$ for Speech II.

Four measures were assembled from the experimental data after they had been recorded on the Frequency Characteristic Tables, of which there was one for each sound studied. These tables gave the various frequencies to which the various lengths of the resonator responded, the variation plus or minus from the true fundamental for the frequency, the partial represented, and the intensity of the reinforcement in centimeters of light beam deflec-

[3] International Phonetic Alphabet.

tion. Experimental Measure I was the average variation of the pitch at which the speech sounds were intoned from the true fundamental for the frequency reinforced. Measure II was the variation of the frequencies represented in the data from the dominant frequencies for the various vowels as discovered by Miller, Crandall, and Paget. Measure III was made up of the average intensities of all the reinforcements other than the fundamentals. Measure IV represented the average number of reinforcements found for each of the sixteen sounds. Thurstone's Standard Deviation Method was employed to transmute the average of these measures into a composite score and to make them somewhat uniform. The Composite Experimental Criterion of Individual Vocal Quality was assembled on a 50 to 90 scale the same as that upon which the Subjective Criterion was built. To give additional information concerning the ability of the ten subjects, they were given the Seashore Pitch Discrimination Test and the Seashore Consonance Test. The following eight measures were used:

1. The Subjective Criterion of Individual Vocal Quality
2. The Composite Experimental Criterion of Individual Vocal Quality.
3. Scores on the Seashore Pitch Discrimination Test
4. Scores on the Seashore Consonance Test
5. Experimental Measure I
6. Experimental Measure II
7. Experimental Measure III
8. Experimental Measure IV

TABLE GIVING THE SCORES OF THE TEN SUBJECTS IN THE EIGHT MEASURES

Measure No.	1.	2.	3.	4.	5.	6.	7.	8.
1.	85.86	80.19	82.	76.	98.2	90.16	70.18	60.57
2.	82.77	84.63	87.	66.	61.19	75.19	104.019	98.42
3.	76.46	71.97	79.	62.	75.94	51.345	76.74	83.86
4.	74.99	68.16	74.	60.	65.96	71.07	67.64	63.25
5.	71.08	63.14	58.	52.	51.96	59.93	78.52	62.02
6.	68.75	53.88	69.	73.	52.33	41.095	66.22	55.91
7.	68.68	77.9	86.	63.	78.38	76.4	70.62	86.285
8.	67.05	69.76	83.	71.	81.62	82.01	47.1	63.25
9.	62.11	64.04	73.	56.	60.72	80.41	61.46	53.53
10.	58.28	67.99	50.	60.	73.76	72.73	52.54	72.94
Mean =	71.6	70.165	74.1	63.9	70.01	70.04	69.4	70.00
P. E.$_m$=	± 1.74	1.86	2.47	1.54				
S. D. =	8.175	8.742	11.57	7.23	11.697	14.214	14.79	14.096
P. E.$_\sigma$ =	± 1.25	1.32	1.75	1.08	1.76	2.14	2.23	2.13

ZERO ORDER CORRELATIONS BETWEEN THE EIGHT MEASURES

	2.	3.	4.	5.	6.	7.	8.
1.	.5915	.5918	.42468	.1906	.1185	.6742	.3229
	±.1386	±.138	±.1748	±.1358	±.189	±.116	±.19
2.		.6144	.2697	.5739	.6097	.4607	.701
		±.1327	±.155	±.143	±.134	±.168	±.1085
3.			.4947	.4099	.33429	.341	.3934
			±.161	±.1776	±.189	±.188	±.18
4.				.45	.074	—.07866	—.031
				±.1699	±.2016	±.2	±.211
5.					.5929	—.3498	.19
					±.138	±.187	±.136
6.						—.1716	.1953
						±.1507	±.134
7.							.623
							±.13

The Coefficients of Correlation between these measures were worked our by using the formula $r = \frac{XY}{n \times \sigma_x \times \sigma_y}$

Do the Experimental Measures have any basis for indicating Individual Vocal Quality? The coefficients of correlation indicate that they have. However, it is true that the scores from the Seashore Pitch Discrimination Test give as high a coefficient of correlation when compared with the Subjective Criterion as does the Composite Experimental Criterion. Measure III appears to be the most reliable indicator of individual vocal quality, as it gave a correlation of .674 with the Subjective Criterion. I believe that this measure of relative intensity is due to the integral relationship between the larynx tone and the characteristic frequency of the speech sound, a condition necessary for good vocal quality.

Had I made a subjective ranking of the ten experimental voices, I would have made only one or two minor changes in the Subjective Criterion ratings. The voices were selected to include a variety of vocal quality. Included in the group were two members of the University Glee Club, two graduate students in Speech, one member of the University Band and Orchestra, four members of beginning Speech classes, and one person being given aid in the University Speech Clinic for a raucous voice. However, when the data are gathered over a period of weeks, the voices might vary from day to day. In fact, voices can vary from one minute to the next. Fatigue and tensions quickly made the voices ineffective in arousing responses from the resonator.

At the best the measures are lacking in fineness. Regardless of this fact, the experimental data gave spectra for the speech sounds which agreed closely with those found by Miller, Grandall, and Paget, especially for the low frequency characteristics.

This study has led the experimenter to believe that individual vocal quality is dependent upon two general factors: (1) The basis for musical sounds, i. e. the harmonic relation between the fundamental and the characteristic frequencies of the sounds; (2) the successful operation of the individual sound-producing mechanism depending upon the following factors: (a) Anatomical—the shape and size, musculature, and innervation of the "vocal tube"; (b) Physiological—co-ordination of the musculature, flexibility of the musculature, tonicity of the musculature, efficient breathing habits, sensitivity of the hearing apparatus; (c) Psychological—discriminative sensitivity, developing of ear—"vocal tube" reflexes, localization of muscular control, and the adjustment tendencies of the individual. All of these items play some important part in the determining individual vocal quality. Correct placement is also necessary for good vocal quality. Apparently this factor depends upon the choice of a pitch level suitable to the sound-producing mechanism.

Satisfactory reaction tendencies on the part of the individual is a first essential in training for good vocal quality. Poor habits of adjustment to the social group can practically prevent improvement in vocal quality. Active breath control is the second factor necessary for voice improvement. Localization of muscular control is a phase of active breathing. Localization of control in the musculature of the "vocal tract" is also necessary for good vocal quality. This type of skill can be obtained by relaxation exercises, mechanical drills, reading of dramatic literature, and practice in original speeches, given in conversational tone. Good vocal quality becomes a habit only when it is integrated with the fundamental habits of the individual. The last two devices or methods are superior when it comes to the problem of integrating the habits.

Further study of individual vocal quality must determine the part that muscular tonicity contributes, the part that general flexibility of the musculature of the "vocal tube" plays, the effect of fatigue on the musculature, and the effect of the localization of muscular control.

EDITORIAL

SIDE-SHOWS OR CIRCUS?

Most departments of speech in high schools, colleges, and universities have numerous extra-curricular activities associated with them or under their jurisdiction. These activities, such as: debating, speech contests, and dramatics, grow naturally out of the departments' regular work and undoubtedly are significant and valuable auxiliaries to that work. Rightly handled, these activities motivate and supplement class-room instruction in the various phases of speech. To a rather select group of superior and talented students, they furnish unique opportunities for applying and practising the principles and techniques in which they have received class-room training. They also bring profitable publicity to the department in charge of them. However, as is the case with most human activities and institutions, their potentialities for good carry along with them dangers and temptations. In promoting and supervising such activities, departments of speech must expect to take the short with the long and should carefully consider all of the important implications and problems which are involved. With a limited number of teachers, with limited energies, and with multifarious duties, it is not unnatural that, in many instances, we should allow those aspects of our work which attract public attention to claim so much of our time and strength that our class-room instruction is seriously reduced in both quantity and quality. A dramatic performance is much more spectacular than is good class-room training in dramatics. An interscholastic or intercollegiate forensic contest brings much more public notice to the participants and to the coaches than does any amount of excellent class-room training in speaking. It is, therefore, very easy for departments of speech to become *servants* rather than *masters* of these extra-curricular activities. One of the principal functions of a side-show is to get the potential circus public interested and to attract them into the main tent. Without trying

to make a quadruped out of our analogy (with full appreciation of the fact that not all extra-curricular speech activities are side-shows and that not all class-room courses are circuses!), we must beware lest the side-shows absorb too much of the patronage which we want for the circus itself.

"PIPE" COURSES

Even in this day of enlightenment and grace, it is commonly charged that, in many institutions, the speech curriculum is honeycombed with "pipe" courses. It is difficult to assess ultimate and complete responsibility for such conditions where they exist. It is probably true that the average student in the average institution expects to do less work in his speech course than he expects to do in biology, chemistry, or mathematics. It seems to the student that, since everybody speaks and since so large a portion of the time in most speech class-rooms is taken up with speaking, little outside preparation should be required. Long and difficult text-book or outside reading assignments are not anticipated or accepted without protest by the average student registered in a speech course. Too often, the timid instructor compromises with his conscience and lowers his standards to the level of student expectations and demands. He is slow to assert his right to his full and just share of the student's preparation time. He even concedes that study of the text-book, outside reading, and written examinations play only minor and unimportant roles (if any!) in the speech course. Courses so conceived and so administered are ultimately popular with poor students only—never with good students. The really high-grade student does not seek out such "pipe" courses.

The teacher of speech does not need to make his work artificially easy on the theory that if he makes it hard his registration will fall off. We should proceed upon the sound assumption that a factual background is indispensable to students who are training themselves to be intelligent and efficient critics of their own speech performance. We should believe and insist that the facts about human speech are inherently just as significant and valuable as are any other facts which the student is expected to learn in school or in college—that they are, indeed, far more closely related to

the problems of efficient and happy living than are most of these other facts.

To be sure, it should, be frankly admitted that merely making our courses difficult will not guarantee their respectability and value. The problem is doubtless more complicated than that. There may be easy courses which are at the same time good courses, and difficult courses which are worthless. However, these are probably the exceptions rather than the rule. The point is that the one sure way to gain academic respect is to be academically respectable. If we hold our standards high, we shall find that students of the right sort will react to the challenge of the difficult so long as it is, at the same time, the worthwhile. If we make the gate into our courses strait and narrow, we may be sure that excellent students will throng in upon us.

THE SOUTH ORGANIZES

In the News and Notes Department of this issue, there will be found an announcement of plans for the organization of a Southern Association of Teachers of Speech paralleling the Eastern Public Speaking Conference, founded in 1911, and the Western Association which came into being in1929. The teachers promoting this movement are a wide-awake, forward-looking group who have already evolved a comprehensive program of professional activity throughout the South. This is indeed a heartening development; one which promises great things for speech education. A proposition has already been made to the Executive Council that the 1931 convention of the National Association be held in New Orleans or in some city far enough to the south to be accessible to the members of the new association. It is needless to say that this proposal will receive the earnest and sympathetic consideration of the Council. We are all anticipating the day when the National Association may be able to hold its annual conventions on a rotating schedule which will bring it into touch with the several subsidiary and allied regional associations. About all that is needed to complete the organization of our profession now is a Rocky Mountain Association. Things certainly are moving rapidly and in the right direction. Our sincere congratulations to the organizers and members of the Southern Association!

THE FORUM

QUESTIONING THE DEBATE QUESTION

To the Editor of THE QUARTERLY JOURNAL OF SPEECH:

HOW SHOULD A DEBATE PROPOSITION BE PHRASED SO AS TO GIVE THE AFFIRMATIVE A REASONABLE BURDEN OF PROOF?*

When it is possible for an affirmative team to meet an affirmative team and yet to have a debate, and for a negative team to oppose a negative team with a clash of opinion, it is high time to question the debate question. In 1930 the state question for the Wisconsin High School Forensic Association was: Resolved, *That installment buying of personal property as now practiced in the United States is both socially and economically desirable;* and the question debated by the University of Wisconsin women was: Resolved, *That the present practice of Installment buying of consumption goods (except dwellings) should be condemned.* The Wisconsin High School teams and the Wisconsin University women's teams are trained by the same teacher. In order for them to have a practice session against each other, the affirmative had to meet the affirmative and the negative the negative.

Such confusion in the phraseology of propositions leads the student of debate to wonder if there are authoritative standards which may be applied to the wording of the question. A careful study reveals that authorities in the field of debate generally agree that the question should be so stated as to provide that the affirmative must advocate some change in the prevailing conditions.

Shaw says, "The proposition should be made positive....for if the affirmative of the proposition is in effect a negation, great confusion concerning the respective sides in the controversy

* In discussing a reasonable burden of proof for the affirmative, the writers of this letter argue only for a statement of the proposition which makes the affirmative advocate a specific substitute for the system which they oppose.

is likely to arise."[1] And again he says, "The proposition must be phrased so as to make the affirmative advocate some change in prevailing opinion or prevailing conditions."[2]

O'Neill says, ". . . the burden of proof means the duty of proving the case. The duty of proving the case is always upon the man who demands a change, who objects to things as they are, who brings a charge against an individual or an institution. In other words, the burden of proof is always upon the man who will be left unsatisfied if the present situation is not changed, if nothing is done, no new beliefs accepted. The man who wants Federal ownership and operation of all coal mines in the United States is the man who will lose if nothing is done with regard to the question, the man who would still be left unsatisfied. Therefore, the burden of proving that the Federal Government should own and operate all coal mines is squarely upon that man. The proposition should read: Resolved, *That the Federal Government should own and operate all coal mines in the United States.*"[3]

O'Neill contends further, that..."it makes no difference whether the proposition is worded negatively or contains the forbidden word "not" so long as the affirmative of the proposition as worded has the burden of proof. The burden of proof actually rests upon the side advocating a change, or opposing the existing order."[4]

Collins and Morris state, " ... the burden of proof should be on the affirmative. The affirmative, in most debates, advocates a change from the present belief or status. In is an accepted principle that 'he who contends must prove.' Debate procedure, in giving the affirmative the opening speech and the last rebuttal recognizes that to contend is a bit more difficult than to defend. .. the negative is at a tremendous disadvantage if the burden of proof is placed on its shoulders by a careless wording of the proposition. This disadvantage is easily seen in such a resolution as: Resolved, *That the United States should continue the policy of the Monroe Doctrine.*"[5]

[1] *The Art of Debate*, Warren Croate Shaw, page 16.
[2] *The Art of Debate*, Warren Choate Shaw, page 18.
[3] A Manual of Debate and Oral Discussion, James M. O'Neill, p. 23.
[4] Argumentation and Debate, O'Neill, Laycock, & Scales, page 29.
[5] Persuasion and Debate, Collins, George Rowland, and Morris, John Seybold, p. 171-172.

Baird declares, "To give to the affirmative the burden the statement should be framed so that, (1) the affirmative advocates a policy or contention strongly opposed to public opinion, or so that (2) the change from existing affairs is advocated, as in the usual question of policy."[6]

Shurter maintains, "That to affirm a denial is always a weak statement."[7]

Ketcham believes, "Since . . . the affirmative must be given a chance to prove something before the negative can reply, the proposition should always be worded in the affirmative."[8]

Pattee writes, "The 'burden' always rests upon the side that advocates a change, and the proposition should be so worded that the affirmative will have to undertake this duty."[9]

Graves & Spotts are of the opinion that, "The affirmative becomes synonymous with the radical or progressive side, demanding change; the negative will invariably be the conservative side, opposed to the advocated change."[10]

In our search for authoritative opinion upon this point we have been unable to find any one who thinks circumstances ever justify phrasing the proposition so that the affirmative argues for present conditions, and the negative argues for a change.

There are, in general use, three ways of stating debate questions, examples of which follow:

1. Those in which the affirmative upholds present conditions, as in the question: Resolved, *That the present practice of installment buying of personal property is desirable.*

2. Those in which the affirmative opposes the present conditions, but is not obligated to offer a remedy, as in the question: Resolved, *That the present practice of installment buying of personal property should be condemned.*

3. Those in which the affirmative opposes the present conditions and is obliged to offer a remedy as in the question: Resolved, *That cash payment should be substituted for the present practice of installment buying of personal property.*

[6] Public Discussion and Debate, A. Craig Baird, p. 50-51.
[7] How to Debate, Edwin DoBois Shurter, page 19.
[8] Argumentation and Debate, V. A. Ketcham, page 16.
[9] Practical Argumentation, G. K. Pattee, page 18.
[10] The Art of Argument, Graves & Spotts, page 24.

The phrasing of the first proposition, in making it mandatory upon the affirmative to uphold present conditions, obviously violates the principle agreed upon by the foregoing authorities. The phrasing of the third proposition, in making it mandatory upon the affirmative to offer a remedy for present conditions, obviously agrees with the principle laid down by these authorities. The phrasing of the second proposition, by leaving the affirmative in doubt as to whether it must offer a remedy for present conditions, raises a question which these authorities have not answered. Does a reasonable burden of proof for the affirmative demand that they offer a remedy for the evils which they point out in present conditions, and should this remedy be specified in the question? The authors of this article believe that the question should be so phrased as to demand that the affirmative offer a specific remedy for the evils which they decry. We believe the question should be so worded, because, if it is not, the coaches and teams do not know what they should do. Likewise, the judge is at a loss in rendering the decision. Some judges decide against the affirmative for not offering a specified plan, regardless of the affirmative's superiority in every phase of debating. Other judges vote against the affirmative on the basis that such a plan is outside the affirmative's burden of proof. Finally, the audience probably expects the objecting side to offer a better system than the one of which they complain.

In the experience of one of the writers, the decision in a debate on the question; Resolved, *That the Ohio direct primary law should be repealed,* was awarded to the negative by a single critic judge because the affirmative did not offer a specific substitute; whereas another critic judge on the same question decided in favor of the affirmative because it had offered no substitute after it had shown that the present situation was bad. In the latter case, the audience expressed its disappointment by privately saying that the affirmative team left them 'in the dark.'

So far we have been giving a major portion of this discussion to the affirmative side of the case. The negative is, however, at a greater disadvantage. It must be strictly defensive or be a Don Quixote battling with windmills. This lack of offensive balance between the affirmative and negative precludes a live, fair contest. The affirmative is given the first and last speeches on the assump-

tion that it should attack existing conditions and offer a remedy. Collins & Morris, and Ketcham, already quoted, state this point very concisely.

The modern trend of debate propositions is more and more toward looseness of wording and mere negation for the affirmative. The development of the so-called "philosophical question" and the influence of the English debating teams has lessened the care with which debate propositions should be worded. The popular attitude towards social ideals in general has become increasingly destructive. It is the spirit of negation, unconnected with any attempt to be constructive, that now catches the public fancy. Such a psychology is permeating the thinking of the American people.

The Pacific Forensic League indicates this trend in listing their choice of questions for 1928-29. First choice was given to the questions: Resolved, *That the Russian plan of total disarmament proposed at the Geneva Conference should be adopted by all nations.* Second choice was: Resolved, *That this house regard with disfavor any curtailment of free expression of ideas.* This last question, the League notes, was intended for the more popular type of debate.[11] Two supplementary propositions were adopted. Resolved, *That the plea of temporary insanity in defense of crime should be prohibited by law,* and, Resolved, *That installment buying of consumption goods should be condemned.* The League calls these "propositions for serious type of debating." Then, "for free discussion," the League used: Resolved, *That the policy in the United States of offering higher education to all types of people should be abandoned; and,* Resolved, *That the dragging forth of the skeletons of our national heroes from the historical closet should be decried.* And the League concludes with this very interesting comment, "The wording of the last three questions contains the fault that they advocate that which the affirmative does not want instead of that which the affirmative wishes."

It is our belief that a debate should represent a clash of argument and a definitely assumed burden of proof by the affirmative. We heartily endorse the present tendency to debate questions of immediate interest. But these questions ought to be worded with the same care as other questions of more serious moment. We

[11] QUARTERLY JOURNAL OF SPEECH EDUCATION, 1928, Vol. 14, page 616-17.

think that the following questions are worded in such a manner as to encourage a balance of offensive and defensive argument, and a clash of opinion:

1. Resolved; That the several states should be allowed to adopt the Ontario system of liquor control.

2. Resolved, That the Federal Government should own and operate the proposed Boulder Dam project.

3. Resolved, That all Freshmen at the University of Wisconsin should be required to live in state controlled dormitories.

Such a question as: Resolved, That capital punishment should be abolished throughout the United States, puts the affirmative in a hole. On the one hand, there are those who say that the affirmative, to be constructive, should advocate some such remedy as the Cuban plan for dealing with criminals condemned to death. Then there are those who say that all the affirmative has to do is to establish proof that capital punishment is wrong, without putting anything in its place.

The only solution to this perplexing problem is to state debate propositions so that the affirmative has a definite burden of proof and a specific remedy to advocate. This will make for a clash of argument and a better debate.

The teachers of debate in the Western Conference have realized this growing carelessness in phrasing propositions, for at their last meeting in New York, during the recent meeting of the National Association, they made provisions for a new plan for phrasing their questions for debate after the general subject had been agreed upon. Perhaps it would be worth while for the National Association itself to consider this problem.

When the National Committee of Extension Divisions, which selects the question for hundreds of high schools in a score or more of States, and supervises the debates of thousands of students before an ever-growing audience of patrons and judges; and when one of the largest honorary forensic societies, numbering hundreds of chapters, selected, last year, questions which either placed the affirmative in the position of mere negation or did not entail upon the affirmative a specific burden of proof, it is high time, again we repeat, to question the debate question.

CARL TAYLOR,
RAYMOND BARNARD,
University of Wisconsin

DISCIPLINARY PROBLEMS IN COACHING DRAMATICS

To the Editor of THE QUARTERLY JOURNAL OF SPEECH:

In a recent publication, a high school principal, in commenting upon the educational value of dramatics, states that no student in the dramatic department has been referred to him for discipline in eight years. A master teacher-director, indeed, must be the instructor in that particular school! But have the many improvements and reforms in the amateur dramatic field, solved all of the disciplinary problems of the high school dramatic coach? Perhaps the problems are not being presented to the principals for solution; possibly the coach has become endowed with that trait of character which she hopes that dramatic training will develop in her students, that of self-reliance.

The writer believes that disciplinary problems do still exist. They may be less evident in the larger schools in which there is a full-time director of dramatics who has all the essential materials of production, a large student body from which to select his casts, and an extensive schedule of dramatic productions. But in the smaller schools in which the director fills a host of other positions, in which there is a small handful of students with dramatic inclinations, and in which one or two major productions constitute the dramatic schedule, there are still existent certain disciplinary problems which may be classed as problems of relationships.

The first disciplinary problem is that of academic responsibility. Reports that the scholarship average of the cast is raised during the time that they are preparing a play are not uncommon. Is this merely a claim of the director, or will other members of the faculty bear out the assertion? Is this condition, if true, illustrative of a typical condition or an exceptional one? Is there not a tendency on the part of the high school student to become so enthused about the work of the play that everything else is slighted? Is there not a feeling that the play is the most important undertaking of the school at the time and that other things may be slighted? Is there not a tendency on the part of the direcor to require so much time for rehearsal and study of the play that other scholastic work cannot be given proper attention, if health is to be considered? Several methods may be used to stress the necessity of maintaining proper academic standards. The dou-

ble cast system, or the use of understudies, will often convince a cast that conformity to standards is worthwhile. A weekly report on scholarship as in the case of athletics may be of value. Requiring the candidate for the cast to have the written approval of the Principal or the Faculty Scholarship Committee may relieve the director of some responsibility. Regardless of device employed, the director, before attempting to stage a play, must make clear to the cast the relationship of academic work to participation in the play. The producing of a play is never of greater importance than the development of correct habits and educational ideals, and it is the duty of the director to use every means at his disposal to hold up academic standards whether he assumes the role of slave-driver or of sympathetic friend in doing so.

The element of team work may create a second problem of discipline but, under proper coaching, this element may appear as one of the worthwhile objectives and a desirable outcome of participation in a school play. A director must have team work, and it is in rehearsals that team work, or the lack of it, becomes evident. For the individual student, the rehearsals should develop self-control, self-reliance, a sense of loyalty, a sense of personal responsibility, an enthusiastic cooperative spirit, and above all else, a recognation of authority. According to Crafton and Royer, "It is in the matter of conducting rehearsals that the Director meets his supreme test; here he assumes sole responsibility and despotic rule; here he becomes teacher and critic, sympathetic friend and slave-driver; here all his intelligence, energy, and enthusiasm are called into service." The method to be employed by the director is determined by his temperament and becomes an individual matter, but he must in his own way, impress upon his actors that the stage is a workshop and not a playground.

The third problem of discipline which the director must meet is that of dealing with the egotist. In the high school which presents only one or two plays a year the "lead" is apt to be a much sought for position and the securing of it does not always help the student to become more modest. The "lead" in two or more successive plays may have results that will cause the faculty, the parents, and the director himself to question whether the educational value of the play to the rest of the cast is not off-set by the harm done to the one student.

The presence of the egotist must be met by teaching the individual to subordinate self; it must be combatted by forcing the student-actor to recognize authority. Often a double cast system or a workable plan of understudies will prevent the egotist from developing but even these devices are not sufficient safeguards against his appearance.

The actor must be taught to think not in terms of individuals but to think of the cast as a team which must use concentrated effort and cooperation. Teach the actor that if he believes in the principle of team work and wishes to exemplify that principle, that there are certain contributions which he can make; he can memorize his lines promptly and be on time for rehearsals; he can hold the atmosphere of the play when the director interrupts; he can think of the actors, not as themselves, but as the characters they are portraying; he can render his director and his fellows, countless little services. If, after efforts to teach him these things, he is not willing to subordinate self to fit himself into his position, to abide by training rules for the team, then the director is justified in making him do so, or in removing him from the cast.

The foregoing problems of discipline undoubtedly are problems which are not frequently discussed by directors; they may not exist in all situations, but the existence of them does not indicate the failure of the teacher-director. All of the problems are problems of relationships. Before a cast is chosen, and again before even the first rehearsal occurs, it is well for the director to have a heart-to-heart talk with his students on the subject of relationships. Give them your opinions, get their reactions, quote authorities, and secure expressions from others of the faculty, in an effort to get a true conception of the relationships involved in the producing of a play. Help them understand the relative values of co-operative work, of academic standards, of subordinating self, and of recognizing authority. But when all other means fail, let it be understood that there is always one person in whom alone final authority rests, the director.

J. Richard Bietry, *Kalamazoo, Michigan*

NEW BOOKS

Human Speech. (Some Observations, Experiments, and Conclusions as to the Nature, Origin, Purpose and Possible Improvement of Human Speech), By Sir Richard Paget, Bart., Fellow of the Physical Society of London, Fellow of the Institute of Physics; Harcourt, Brace and Company, New York, 1930: pp. 360, $6.00.

This volume, fresh from the press,—it was released in this country on April 3rd, 1930—is published as one of the series known as "The International Library of Psychology, Philosophy, and Scientific Method" under the general editorship of C. K. Ogden, M. A. of Magdalene College, Cambridge. In a sense, the volume is a companion-piece to "The Mechanism of the Larynx" by V. E. Negus, reviewed in the February issue of the Journal; that is, it comes to our profession from the hand of a research worker who is only incidentally connected with us, and yet it is a monumental contribution to our field of knowledge.

The book contains thirteen chapters and an appendix of about seventy pages, divided into eight sections. The chapters bear such headings as the following: *Preliminary Observations as to the Vocal Organs, and Their Functions in Speech; Observations on the Vowel Resonances; Observations and Experiments on the Consonants; The Origin and Development of Speech; Vowel and Consonant Symbolism; Voice Production, Mouth Resonance in Relation to Laryngeal Pitch;* etc. The appendix takes up such topics as: *The Double Resonator Theory of Vowel-Sounds* (contributed by W. E. Benton), *Consonant Resonances, American and English Vowels, Polynesian language* (contributed by Dr. J. E. Rae). The volume is profusely illustrated; there are one hundred seventy-five cuts in all.

The author approaches the subject of human speech (by *speech* is meant *spoken language*) from the standpoint of one who is well informed in physics, philology, acoustics, linguistics, and phone-

tics. Parts of the book are written in a simple popular style which will make it very attractive to the casual reader who may lack the scientific background needed for reading profitably certain other parts. Perhaps it may be well to let the author himself speak to us in a few excerpts from the preface which may give an impression of his style and point of view.

"This book is addressed to the general reader, with a preference for him or her that is interested in Speech from one or other of its practical aspects; namely, as a means of communicating and recording ideas, as the basis of the arts of literature, poetry and song, or as one of the principal accomplishments distinguishing man from the lower animals."

"Its aim is to give, in simple language, an account of some personal observations and experiments on the phenomenon of human speech, and some conclusions and suggestions as to its probable origin and future development."

"Here two apologies are necessary. In the first place to those persons interested in language, who believe that the origin of human speech is necessarily undiscoverable—such as the members of the illustrious Philological Society, quoted by Professor Max Müller in his *Science of Thought*, who passed a resolution never to admit a paper or allow a discussion on the Origin of Language; in the second place to those persons interested in our English language who believe (quite wrongly as I think) that English is always perfect and incapable of improvement."

The Introduction to the book is a most interesting and easily intelligible account of the fundamental physical facts concerning the voice mechanism, with special reference to the problem of resonance. The second chapter considers the function of the vocal organs in speech and presents such points of view as may appear in the following statements:

"They (the lungs) have no more resonance than ordinary bellows would have if they were packed full of damp bath sponges. Indeed, from an acoustic point of view the lungs are an almost perfect absorber of sound and destroyer of resonance. Their branching tubes—becoming ever smaller and smaller till they terminate in a multitude of infinitesimal air cells—act towards a sound wave like a shelving beach acts towards a wave of the sea. The wave gets broken up into an ever-thinning stream, which expends its

energy in forcing its way up the beach. The energy of the wave is in fact mostly converted into heat by friction against the beach."

"It is fortunate that there is no such effect as chest resonance, for it would of course vary in pitch for every degree of inflation of the lungs, and would thus be a fatal bar to the uniform operation of the vocal cords. The lungs are acoustically neutral and therefore allow free action to the vocal cords."

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"It may be said that English and most of the European and Indian languages are based on whispered speech, and that phonation—i. e. the use of the vocal cords for producing a preliminary vibration of the air so as to cause a humming sound during the articulation of the vowels or 'voiced' consonants—is only an auxiliary device. From this point of view the vocal cords are not really an organ of speech—their function is to give inflexion, melody, and emotional quality to speech and song, and to increase the audible range at which the voiced sounds can be heard."

Chapters III and IV tell the story of painstaking and prolonged analyses of vowel resonance and experiments with plasticene models for the artificial production of vowel sounds. In chapter VI the following observations are made concerning the nature of consonant sounds.

"At this stage, therefore, the definite conclusion seemed justified that the consonant sounds—or at least all those which had been so far produced—were as essentially musical as the vowels, and that they should be capable of identification by the musical pitch of their resonances. Further, as there was every reason to suppose that the remaining consonants did not differ in kind from those already observed—which included semi-vowels, plosives, and fricatives—it seemed likely that *all* the consonants should be capable of musical analysis and be reproducible artificially by models which produced the correct resonances and resonance changes."

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"We are now in a position to state certain definite conclusions as to the nature of consonants. Consonants are due to resonances, like the vowels; but inasmuch as they are produced by movements of the vocal organs (like the diphthongs) their resonances are characterized, not only by pitch, but also by their change and rate of change in pitch. The consonants are all made by complete or

partial closures of the front or back orifice of the front resonator of the series which produce them. In every case there are more than two resonators in action. . . ." "We are, in fact, driven once more to the conclusion, already referred to at the end of Chapter V, that, in recognizing speech sounds, the human ear is not listening to music but to indications, due to resonance, of the position and gesture of the organs of articulation."

The foregoing statement brings us to what is probably the outstanding contribution of this book; namely, the missing link in what is known as the "gesture theory" as to the origin and development of speech. It has always been easy to accept the hypothesis that speech probably originated in gesture. However, it has never been clear, heretofore, how these beginnings in gesture could have evolved into spoken language. Paget has a very interesting suggestion to make on the matter of this transition. He says: "Speech, we have seen, is essentially a musical phenomenon; yet in our appreciation of it, we appear to be interested in the sounds only in so far as they give evidence of the positions and gestures if the organs of articulation which produced them. Very different sounds are naturally reckoned (for identification purposes) as identical, if they are due to similar articulation-gestures, though these gestures may (for convenience) be made in different positions in the mouth, acording to vowels with which they are associated. . . . What drove man to the invention of speech was, as I imagine, not so much the need of expressing his thoughts (for that might have been done quite satisfactorily by bodily gesture) as the difficulty of 'talking with his hands full.' It was the *continual* use of man's hands for craftsmanship, the chase, and the beginnings of art and agriculture, that drove him to find other methods of expressing his ideas—namely, by a specialized pantomime of the tongue and lips. . . . As man developed in intelligence and technique, the need for more exact gestures became greater, while his hands became more occupied with the arts and crafts. Gestures, which were previously made by hand, were unconsciously copied by movements or positions of the mouth, tongue or lips. . . . ."

"The argument, then, runs as follows: Originally man expressed his ideas by gesture, but as he gesticulated with his hands, his tongue, lips and jaw unconsciously followed suit in a ridiculous fashion, 'understudying' the action of the hands. The conse-

quence was that when, owing to pressure of other business, the principal actors (the hands) retired from the stage—as much as principal actors ever do—their understudies—the tongue, lips and jaw—were already proficient in the pantomimic art."

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"Then the great discovery was made that if while making a gesture with the tongue and lips, air was blown through the oral or nasal cavities, the gesture became audible as a whispered speech sound. If, while pantomiming with tongue, lips and jaw our ancestors sang, roared or grunted—in order to draw attention to what they were doing—a still louder and more remarkable effect was produced, namely, what we call voiced speech."

This theory, which is developed at great length and supported by a vast amount of philological and phonetic data, is really a most significant addition to our thinking regarding the origin and development of speech.

The author of the book shows his intimate familiarity with the literature of the field from Sir William Temple in 1692 through Wilkins, Kratzenstein, de Kempelen, Willis, Wheatstone, Helmholtz, Potter, Bell, Lloyd, and others down to D. C. Miller and G. Oscar Russell. In dealing with the speech of animals, particularly that of the apes, the author quotes Cross, Furness and Yerkes. The omission of Köhler is surprising.

Certainly every teacher of speech who has any interest whatever in the scientific aspects of his subject will want to purchase *Human Speech* by Sir Richard Paget. It is a veritable treasure-house of information.

A. T. W.

Speech and Hearing. By Harvey Fletcher. New York: D. Van Nostrand Company, Inc., 1929; pp. $5.50.

Since the publication of Dayton C. Miller's *The Science of Musical Sounds* in 1922 no book has had more significance for the teacher interested in the science of voice than Harvey Fletcher's *Speech and Hearing.* A great many theories of voice and hearing have been presented, by Willis, Wheatstone, Helmholtz, Koenig, Hermann, Scripture, Miller and others.

Dr. Fletcher has had at his disposal the best-equipped and the best-manned laboratory for experimental phonetics in Amer-

ica, if not in the world. The various chapters of this book are the products of the research of the Bell Telephone Laboratories. The researches were made primarily in the interest of applied science but, to me, the product seems extremely valuable to those interested in gaining knowledge which may aid them in their attempts to train voices.

The first section of the book deals with Speech. Chapter I is devoted to the mechanism of speaking. The table of Speech Sounds uses the diacritical marks fostered by the American Educational Association. I believe that clearness could be added to such a table by the use of the International Phonetic Alphabet. But regardless of this criticism the form of the table suggests definite relationships existing between various vowel sounds. The artificial production of speech sounds is also given some space.

Descriptions of the various devices for recording speech sounds, from Scott's Phonautograph to the methods of the "talkies," are given in the chapter entitled Characteristics of Speech Waves. Many pages of this chapter are devoted to pictures of typical speech waves. Theories of vowel production occupy seven pages, wherein Dr. Fletcher discusses the harmonic and inharmonic theories of vowel quality. A section on the general charcateristics of speech gives experimental data concerning duration, pitch, and dominant frequencies with special paragraphs for the consonant sounds.

The third chapter deals with Speech Power. Here such terms as Instantaneous, Average, Mean, Syllabic, Phonetic and Peak Speech Powers are defined and experimental data are offered as to the power in the fundamental speech sounds. The last chapter of this section discusses the Frequency of Occurrence of words, syllable combinations, and fundamental sounds.

The Physical Properties of Musical Sounds and of Noises are considered in the second part of the book. The apparatus with which the experimental data were collected is described. Tables and graphs display the data. Wave forms of both noise and musical sounds are given and methods of measuring noise are described.

Hearing is the subject treated in Part III. A discussion of the nature of the organs of hearing is followed by a statement of the various theories of hearing, after which the functions of the

various parts of the ear are thoroughly discussed. The data concerning the basilar membrane and adjacent structures are extensively complete.

Some of the phases of hearing treated are: Limits of Audition and Minimum Perceptible Differences in Sound. A very careful mathematical treatment of perceptible difference in pitch and intensity is given. A graph based upon this data shows the relative position along the basilar membrane where the stimulation from various frequencies takes place. Masking effects and subjective tones data form a basis for a theory as to the nature of the vibration of the basilar membrane in the cochlea. The last two chapters deal with Binaural Beats and Methods of Testing Acuity of Hearing.

The first chapter in the section devoted to The Perception of Speech and Music discusses The Loudness of Sounds. The loudness was measured by means of an apparatus which produced a sound of known intensity. This section portrays the results of some very interesting experiments with the effect of eliminating certain bands of frequencies in the perception of musical sounds and speech sounds. The last chapter deals with the effect of noise and deafness on the recognition of Speech Sounds. The appendices are given over to some technical aspects of apparatus, procedure, and derivation of equations.

While this book is unsuitable for the casual reader it holds a wealth of knowledge for the person interested in Experimental Phonetics. And the person lacking technical training can learn much about Speech and Hearing from its pages.

F. LINCOLN D. HOLMES, *University of Minnesota*

Platform and Laboratory Projects for Speech I. A Manual for the Student. BY HENRY LEE EWBANK. New York: Harper and Brothers, 1929: pp. 98.

To those who have been in doubt as to whether to establish a speech course in "fundamentals," and who have wondered what such a course could contain that would make it preparatory for intensive work in the various departments of speech, this little manual will be revelatory and persuasive. To those who already have such courses it will be highly suggestive and useful.

It contains fourteen "platform projects" and twelve "laboratory projects," besides bibliographies of speeches, phonograph records, and materials for oral interpretation, and the complete text of Conwell's Acres of Diamonds. There is also a chart for self analysis, which is intended to form the basis of a personal letter to the instructor, and blank space for noting weekly textbook assignments and projects.

The first three platform projects are intended to "break the ice." Then there are three dealing with bodily action, five taking up the "audible code," and three which deal with special forms of speech-making. The laboratory projects call mainly for analysis of the visible and auditory impressions made by various speakers and actors.

Following each platform project is an excellent list of "suggestions for improvement" with blanks to be filled in, but the casual reader must be puzzled to know whose improvement is meant, and who is to make the suggestions. One would suppose that they were for the benefit of the possessor of the manual did not the wording frequently suggest that his classmates were meant. (Was the speaker looking at you? Did you feel that the act had been rehearsed? Did the speaker convey meanings to you?) If the student is to write here criticisms of his classmates, why the heading "Suggestions for Improvement?" And if, as the introduction states, "the teacher may note his comments" here, why are the questions obviously addressed to the student?

One who is not converted to a belief in "fundamentals" may wonder whether the early stress in pantomime will not make for too much sawing of the air in the later speeches, and whether this mixture of exposition, acting, persuasion, interpretation, and entertainment will not confuse rather than clarify the various fields, but he can only admire the ingenuity of the projects and the definiteness of the course. Students are sure to find the projects interesting, and teachers will be delighted with the wealth of material and the carefully planned procedure.

As a class, we lack, perhaps, the power to definitize our work, and give it orderly progress. We can well emulate this author's clarity as to his objective, and as to his plan of attaining it. His students will know at the beginning of the course precisely where they are going, and at every point during the course just how far

they have gone, and just what remains to be done. All of our courses need such guide books.

W. M. PARRISH, *University of Pittsburgh*

Prose and Verse for Speaking and Reading. Compiled and edited BY WILLIAM PALMER SMITH, Harcourt, Brace and Company, New York, 1930: pp. 382.

Within this little volume are to be found about one hundred and sixty short selections from prose and poetry. The prose is arranged under the following headings: Serious Narratives; Humorous Narratives; Addresses, Editorials, and Essays; and Drama. The verse is classified as Narrative Poems, Lyrics, "Pro Patria," and Humorous and Dialect Poems. The titles in each group are arranged alphabetically. All of the selections, prose and verse, are also classified according to the length of time which they take in reading. Thirty-six of the selections require one minute; twenty—one and one-half minute; twenty-three—two minutes; seventeen—three minutes; eight—four minutes; five—five minutes; eight—six minutes; ten—seven minutes; eleven—eight minutes; four—ten minutes; five—eleven minutes; two—twelve minutes; and three—thirteen minutes. Thus it appears that about two-thirds of the selections are less than five minutes in length.

The list of permissions from contemporary writers and their publishers is very long, and makes one realize that no trouble or expense has been spared in obtaining just the selections which the author desired to include. Such modern and contemporary writers as the following appear among the contributors of prose material: Johan Bojer, Dorothy Canfield Fisher, Ernest Thompson Seton, Sir Arthur Quiller-Couch, Frances Marion Crawford, Stephen Leacock, O'Henry, Booth Tarkington, Albert Payson Terhune, Kate Douglas Wiggin, S. Parkes Cadman, Elbert Hubbard, Hamlin Garland, Owen D. Young, Sir Philip Gibbs, Constance D'Arcy Mackay, John Galsworthy, Clyde Fitch, Louis N. Parker, and many others. Among the poets in the list are the following: Alfred Noyes, Rudyard Kipling, Clinton Scollard, Wallace Rice, William Rose Benèt, Louise Imogen Guiney, Walter de la Mare, Arthur Guiterman, Henry Van Dyke, Sarah Teasdale, Robert Frost, Louis Untermeyer, Shaemas O'Sheel, Joyce Kilmer, Bliss Carman, Ber-

ton Braley, Edgar Guest, Percy MacKaye, T. A. Daly, Bret Harte, and others.

Wherever it is necessary to the understanding of the material, there are carefully prepared statements of facts, setting, previous events, etc. at the heads of the selections. At the end of the book, there is a bibliography of short stories, speeches, plays, and various types of verse suitable for reading aloud and also twenty-five pages of brief biographical notes, arranged alphabetically, giving the main data about each of the authors represented in the volume.

The abridgments have been prepared with excellent literary taste and with good sense. In the preface the author says that two criteria have been applied in choosing the selections; first, their oral effectiveness and second, their freshness. A statement is made that nearly ninety per cent of these selections have not appeared in any other similar collections.

Of course, not all of the types of material are equally well represented. There are only six dramatic selections and one of these—"Frome's Plea for Falder"—is a doubtful candidate for inclusion in the list. Why was this not put among the speeches?

Mr. Smith has rendered a genuine service to the speech teacher who is looking for an anthology of usable and unhackneyed literary material which reads well aloud. I believe that the book will satisfy a real need and that large numbers of teachers, especially in the secondary schools, will feel that it is in a class by itself.

A. T. W.

The Art of Argument. By Harold F. Graves and Carle B. Spotts. New York: Prentice-Hall, 1927: pp. xi, 298; $2.50.

The authors of this book say that it is intended "for short, essentially practical courses in argumentation." It would serve such a purpose, I think, fairly well. The text material is shorter than that in the standard books on argumentation, and the usual rules are boiled down to a minimum. Argument and logic are treated in the orthodox fashion with omission of many of the usual rules; the authors evidently chose those that they thought were of major importance. The chapter on gaining belief (Chapter VIII) appears to be the weakest.

The text is illustrated with a large number of examples, but often there are none at places a reader would expect to find them,

for instance, under the discussion of the use of statistics in argument. Many of the illustrations, however, are fresh and up-to-date, and the authors have worked out some good exercises. The second part of the book consists of specimens; a brief, an outline, three speeches, Lincoln's letter to McClellan, a "sales narrative," an article by Alexander Meiklejohn, and an argumentative dialogue. The brief is only for the affirmative; why both sides were not given so as to show how affirmative and negative clash, I do not know. The outline is merely a series of topics; introduction and conclusion are not separately indicated, and all topics are given equal value.

A rather pointless chapter on "Contest Debating" is made Part III of the book. As to judging, the authors start to discuss the audience analysis system, but omit the method of computing the result. They do not advocate, they say, any method of judging, but they urge that both debaters and judges know in advance the method to be employed. I doubt if any one would disagree with that.

DAYTON D. MCKEAN, *Princeton University*

Modern Debate Practice. By WALDO O. WILLHOFT. New York: Prentice-Hall, Inc., 1929; pp. xii, 339.

The conventional theory of argumentation has been transformed into the tactics of the debater in this book. Mr. Willhoft has done a very good piece of work in this discussion of how debating should be done. However, the narrow scope of the text makes its use for teaching questionable. After all, if the debater is really to understand what he is doing he must know the underlying theory. The study or practice of debating is not primarily to win decisions. If the book should be used in the classroom it would have to be supplemented by others which would give the student the knowledge required.

The book is divided into two parts; Constructing The Case and Supporting The Case. The first two chapters of Part I on The Problem and The Subject seem forced. Chapter 3 on Gathering Material and Chapter 4 on Evidence are very good and many practical suggestions are given. In Chapter 5 the author falls back on the old books on Argumentation and Logic for his material. In his discussion of issues he criticises the use of the "necessity" argu-

ment and then makes use of it in nearly all of his examples and in the brief on page 149. This brief, incidentally, does not have a conclusion.

The second part of the book is even more practical. Many very good suggestions are given for debaters who are preparing for the actual contest. These suggestions would be helpful to the teacher who is coaching for the first time, and would be refreshing to the experienced coach.

Probably the greatest omission is that of a chapter on audience analysis. A discussion of this subject appears in the chapter on Delivery. However, for a practical book more space should be devoted to this problem especially since so many schools are debating before professional and social groups. Statements or arguments which are not tactful or appealing will destroy the interest of the audience and the best delivery possible will not win them back.

A very good index completes the book.

LEON MCCARTY, *University of Illinois*

The School Drama in England. BY T. H. VAIL MOTTER. New York: Longmans, Green and Company, 1929; pp. xiii, 325; $3.50.

This study deserves reading by all interested in dramatics in school or college that they may know the tradition in which they work. For the universities we have already *The University Drama in the Tudor Age* by F. S. Boas, *The Oxford Amateurs* by A. Mackinnon, and *College Plays Performed in the University of Cambridge* by G. C. Moore Smith. But all three of these works together hardly do for their field what Dr. Motter's book does for the drama in English schools.

The plan of the book, which is to treat, after an excellent introductory chapter, the history of dramatic production in each of the older public schools of England, does not make for as pleasant reading as might have resulted from a straight chronological narrative. But as a catalogue of information and documents the result justifies the method. Every reader must be impressed by the importance which the work of schoolboys—or the play of schoolboys, if you like—achieved in English dramatic history. The fact that Dr. Motter brings his stories down to the present makes

his study more valuable for a working director of plays in school or college. The complete list of plays presented at Winchester School from early times to 1925 and the similarly full, though shorter, lists for other schools, will bear reflecting upon by all directors.

It is interesting to learn that Christopher Johnson, Head master of Winchester in the mid-sixteenth century, recommended the giving of plays as a means of learning "oratory and pronunciation." And it is probably significant that at King's School, Canterbury, the production of plays by the boys was well established by 1578, when young Christopher Marlowe was there as scholar. W. C. Macready's first successes as an actor came in his school days at Rugby. Although English schools have gone in for more of Plautus, Aristophanes, Shakespeare, and Moliere than have American schools, it is to be noticed that they also have used contemporary plays (in the early nineteenth century) and even, on occasion, a play written by a student or by a recent student. But there is too much information in these pages for an adequate summary. Nine illustrations add to the interest and value of the book.

HOYT H. HUDSON, *Princeton University*

The New Public Speaker. By RICHARD C. BORDEN AND ALVIN C. BUSSE. New York: Harper and Brothers, 1930; pp. 155.

Since the purpose of this book is not stated in the preface, it must be determined by inference. *The New Public Speaking*, I infer, was written not for scholars but for business men. Hence it was not lack of information but good salesmanship which prompted the authors to intimate that the platform speaker has gone the way of the horse and buggy to be replaced by the *new* public speaker—the man who takes part in conferences. It was good salesmanship, also, to say that "the conference speaker has a technique of his own" newly developed to fit his special needs. Statements like these make the modern business man feel important and therefore receptive. Flattery still opens many locks.

One should not be surprised, then, to discover that the new public speaker must be (1) orderly (by which the authors mean conversant with the more obvious phases of parliamentary law), (2) relevant, (3) purposive, (4) brief, (5) informal, (6) logical, (7) tactful, and (8) sincere. Although all of these principles are

older than Aristotle, the authors have dressed them up, like Hearst editorials, in paragraphs of one sentence, and illustrated them with records of actual conferences.

These illustrations form the most solid and informative parts of the book. They show the application of old principles to situations that are in some degree new because specific. The business man will find many suggestions here that he can understand, and the teacher of business men will therefore find the book useful.

RAYMOND F. HOWES

OLD BOOKS

American Orators and Oratory. By Thomas Wentworth Higginson. Cleveland, Ohio: The Imperial Press, 1901; pp. 91.

In 1901 Thomas Wentworth Higginson delivered three lectures in Cleveland under the auspices of the Western Reserve Chapter of the Daughters of the American Revolution. "The enthusiastic reception of these lectures," says a prefatory note in the present volume, "suggested the desirability of issuing them in permanent form for members." Five hundred copies were printed.

Higginson treated American oratory under the headings, "Colonial Oratory, or the Reign of the Clergy," "Revolutionary Oratory, or the Rise of the Lawyers," and "Anti-Slavery and Lyceum Oratory." In the first, by way of prefatory remarks, he compares English with American speakers, with the observation that in England a speaker dislikes beginning a speech easily and fluently. He cites an M. P. as saying: "Our people . . . don't like to see a man get up and make a speech as though it were the most natural thing in the world to do; they demand a certain amount of preliminary hesitancy—that is good form for us." Higginson also recalls that Daniel Webster in one of his letters said that he heard a question discussed and settled in the House of Commons in about as many hours as it took days to settle the same question in Congress. In other words, Higginson believes that it takes Americans longer to get to the point. He concludes this discussion thus: "My ideal of a perfect speech in public would be that it should be constructed by a syndicate or trust, as it were, of the two nations, and that the guaranty should be that an American should be provided to begin every speech and an Englishman to end it."

The lecture on Colonial oratory does little more than describe an early church service, with its long sermon, and remind us of the high place accorded the minister in Colonial society. The lecturer does not get down to cases. In the lecture on Revolutionary oratory he sketches interestingly the rise of lawyers, against oppo-

sition, and describes in some detail the great speeches of Patrick Henry and of James Otis. He names a volume which sounds interesting and which some readers of the QUARTERLY JOURNAL may know, *The Clergy of the American Revolution*, by J. Wingate Thornton—or perhaps it is *The Pulpit of the American Revolution*, as Higginson once refers to it. In this second lecture the speaker went beyond the limits set by its title and discussed Daniel Webster and Rufus Choate. His best anecdote concerning Choate should be reprinted:

> Here was a man who, on one occasion while defending a sea-captain on the charge of starving his crew, would bring in the books kept by the man and read aloud in his deep, solemn tones the number of barrels of beans, the number of pounds of pork or of herrings, and coming to the climax at last pin his dark eyes on the jury and say, "And, gentlemen of the jury, he fed that ungrateful crew upon that luxurious esculent of the tropics—squash!" And not a man would smile, and every man would look at his fellow-jurymen as if now they had got to the depth of a murder trial.

The third lecture is illuminated by Higginson's personal recollections of the times and men he speaks of. He gives an interesting account of the shift in taste away from stilted periods and bookish language toward a more simple and direct style in speaking. Higginson insists that the later style is also more monosyllabic, but his illustrations show an equally apt use of polysyllables when they are needed. As the chief influence in the change noted he names Wendell Phillips; yet Phillips certainly was not monosyllabic. The sketches of less well-known Abolitionist speakers are valuable, as are also the more extended reminiscences of John B. Gough and Frederick Douglass. The third lecture thus concludes:

> I have tried to portray to you the successive stages of American oratory and to bring to you a stage still far from the present, but which is represented even to this day in the habit of directness, of simplicity, of straightforward talk, and, to some degree, of monosyllables. And when I point you to what I think, even to this day, the two great high-water marks of our public speaking, you will go back with the memory of this progress I have traced, you will go back to Lincoln's Gettysburg address and John Brown's speech in the court-room, and you will find all true of them which I have claimed as part of the progress of American oratory.

HOYT H. HUDSON, Princeton University

IN THE PERIODICALS

WILSON, P. W.: *The Great God Gab.* North American Review, 229, March 1930, 270-276.

The exploits of the orators of the past are, "as a rule, no matter of record, but only of a vague and unsubstantial tradition." The more or less popular notion that oratory is obsolete is a fallacy. "Test oratory by the only test that applies to it, namely, efficiency, and never has there been an era so ruled by oratory as our own." However, we are, in the words of the author, "witnessing the avatar of the Great God Gab....We have mass production" in oratory (as in other phases of production) which "has led to mass loquacity."

Mr. Wilson proceeds to develop the thesis as stated in the last sentence of the preceding paragraph, and do it in a very interesting and stimulating style. However, nothing in the article need be particularly disturbing to us teachers of speech, who, presumably, are less interested in quantitative than we are in qualitative development. G. W. G.

STERCK, FRANK: *"Slanguage."* The Ambrosian, 8, Spring 1930, 231-233.

There is a "distinction between creative slang and the pure verbal sloppiness so current today." Many slang expressions have rare force and virility. Among these are such phrases as "You said a mouthful," "a pain in the neck," and others. "England may be richer and stronger by seniority, originality and literary achievement in our mutual tongue, but it is the American contributions that have made the language more direct and to the point, more terse and business-like." G. W. G.

JUDSON, LYMAN SPICER: *Objective Studies of the Influence of the Speaker on the Listener* (As Observed in Respiratory Changes.) Journal of Expression, 4, March 1930, 1-11.

As a result of this carefully worked out study in respiration the following conclusions are indicated:

1. The influence of the speaker on the audience may be measured objectively.
2. The influence of the speaker results in a decided variation in the rhythmic breathing rate of the listener.
3. The listener's rhythmic breathing rate tends toward becoming the same as that of the speaker.
4. The speaker's rate of breathing is slower during speaking than during normal breathing.
5. The listener's rate of breathing is more rapid during listening than during normal breathing. *(Cf. No. 3.)*
6. The greatest contributing factor to the slower rate of the speaker is the lengthening out of the expiratory phase.
7. The variation in the breathing rate of the listener is contributed to both in inhalation and in exhalation.

G. W. G.

RUSSELL, G. OSCAR: *Physiological Cause of Guttural and Piercing Deaf Voices.* Oralism and Auralism, 8, July-September 1929, 98-104.

Undue tensions in the internal and external musculature of the larynx produce the effects noted in the title of this article. While it was written primarily from the viewpoint of the teacher of the deaf, there is much in the article that should be of value to the teacher of the student with more or less normal speech. Certain popular conceptions of the operation of the vocal mechanism are combatted, on the basis of Dr. Russell's long experience with X-ray photography of the larynx.

G. W. G.

NASH, ALBERTINE RICHARDS: *Emotional Education.* Theatre and School, January, 1930.

From the point of view of mental health, dramatic education is viewed as equally important with mathematics and history. Many of the problems of the school child are psychological; the problem children are psychological subjects.

Typical cases of social maladjustment are cited, and the effects of intelligent dramatic training in correction are pointed out.

There is the bright but lawless boy who is drawn into community effort. There is the girl who was domineering because she felt that she must "count" with others; while for the day-dreamer "dramatics is particularly useful. . . .because it appeals to the imagination while presenting plenty of actual problems for mastery." Dramatic work "may be a source of happiness to humanity far in excess of that which comes to a child from merely being in a play, for, in the hands of a kind and insightful teacher, it may be used to heal many mental wounds which might otherwise bleed and fester."

G. W. G.

BRIGANCE, WILLIAM NORWOOD, *The Foreign Language Grindstone*, The American Mercury, Vol. XIX, No. 76, April, 1930.

Latin and Greek were originally studied because Latin was the language of diplomacy and Greek the language of science. Not until English, German, and French translations of the Bible appeared, following the Renaissance, did scholars bring forth the argument that the study of Latin and Greek was invaluable as a mental discipline. This argument sufficed until the attack on the compulsory study of ancient languages was renewed in the nineteenth century. Then the classical scholars announced that only through a study of Latin and Greek could one arrive at a mastery of his native tongue.

Against these arguments, conceived in moments of necessity, Professor Brigance marshals the evidence of scientific investigations. Professor Michael West's research in India, the studies among Welsh students by Professors Saer, Smith, and Hughes, and American studies by Professor Judd, Buswell, and Thorndike are cited to "expose the absurdity of the claim that foreign language study is even useful, to say nothing of being indispensable, as a mental discipline." Professor J. Ronjat's study "Le Dèveloppement du langage observè chez un enfant bilingue" (1923); the results of an investigation among Swiss children by Professor I. Epstein, published by the Lausanne Library under the title "La Pensèe at la Polyglossie," and "Die Erlenung and Beherrschung fremder Sprachen" by the German psychologist, Stern, are presented as proof "that foreign language study is likely to interfere seriously with the use of the mother tongue."

Professor Brigance does not attack the study of foreign lan-

guages as such. Rather, he calls on teachers to re-define their aims, to come to the position "that foreign languages are to be studied only for the sake of learning them," that they may be used as means of communication or as tools of scholarship.

The article is both interesting and convincing. It might well be read by students of argumentation and debate as an example of dignified and effective argumentative prose.

H. L. E.

Graduate Study and Research

DOCTOR'S THESES

Burke's Chief American Works. By H. C. Harshbarger. Abstract of a dissertation presented at Cornell University for the degree of Doctor of Philosophy, 1929.

The dissertation represented by this abstract is an edition, with notes and an introduction of Burke's principal American works—*On American Taxation, On Conciliation, Letter to the Sheriffs of Bristol.* The editor's guiding principle has been that Burke is to be studied as an orator and a public man, and that his works are to be regarded as resulting from the interplay of three forces—speaker, occasion, and audience. Accordingly, there are presented an analysis of the forces and factors which determined and limited his success, an historical account offering a re-creation of the moment—in Burke's life and that of the nation—at which they were delivered, and a study of the audiences to which they were addressed. In the examination of these factors, the attempt has been, not to discover new facts, but to assemble and order the facts from the point of view of the student of public address.

The introduction treats Burke's early life as preparation for his career, his study of America, the premises from which he habitually reasoned, and his habits of preparation and delivery, so far as known. For each of the three works, a prefatory essay explains the remote and immediate situations which gave rise to it, analyzes the sequence of thought and the use of the various kinds of appeal or proof, and states the effect of the work so far as traceable.

Burke's education and reading are found to be, in the main, classical and historical, thus furnishing him not merely with sources of quotation and allusion, but with a broad knowledge of men and affairs; his lack of associates reveals him to have been a rather solitary figure; the curriculum shows him to have had, in

all probability, no formal rhetorical training; the records of the Historical Club of Trinity College, Dublin, make it plain that for a short time, Burke received much practice in making speeches, and that many characteristics of his later oratory emerge; his publication of the *Reformer* and his participation in the Lucas controversy reveal a breadth of information, a style and habit of thought clearly related to that of the later works, and a capacity for independent thought and action.

The principal topics for a discussion of Burke's study of America are the sources of his knowledge (traced to his share in *An Account of the European Settlements in America* and in the *Annual Register* and to the advantages of his seat in Parliament and his position as Agent for New York), the sources of his philosophy of government (Locke, Montesquieu, Hume), the state of the controversy as represented by the speeches and pamphlets of the time (by Pownall, Hopkins, John Adams, Otis, Dickinson, Arthur Lee), and the community of thought within his party both on questions of general governmental policy and on questions of fact with regard to America. The three chief American works are shown to have much in common with Burke's earlier speeches as reported, with his earlier pamphlets, and with the speeches and writings of others.

In the American works, Burke grounds himself on four fundamental assumptions: happiness is the true end of government; political expediency is the means of accomplishing that end; the criterion for judging the end is the wisdom of the past; and the end must be attained through the medium of the British constitution. Burke's uses of these assumptions are shown to be, rhetorically, highly varied and ingenious, but on a level of sustained and systematic thought which made the works "too deep for his hearers."

In the prefatory essay to each work, it is found that the sequence of thought arises naturally from audience, occasion, and speaker; and that the available means of persuasion are used in great variety, but with a predilection for logical proof imaginatively presented. *On Taxation* is found to be by far the least conciliatory in tone. *On Conciliation* shows a greater tendency both to emotional appeal, and to the establishment of good relations between speaker and audience. The *Letter* contains an even larger

proportion of "ethical proof." The effect of the speeches on the debates in which they occurred is analyzed, and the effect of all the work on Burke's fortunes and those of his cause is recapitulated.

The evidence as to his mode of preparing his speeches is assembled both from the accounts of contemporaries and from the speeches themselves; and the conclusion is drawn that Burke spoke extemporaneously even when he had opportunity for more elaborate preparation. The outline of *On Conciliation* (in all probability genuine) preserved in Prior is compared to the speech itself, in support of the same conclusion. For the delivery of the two speeches here considered, little evidence is available; but certain general characteristics of Burke's manner of speaking, as reported to us, are noticed.

Because Burke, in these works, exhibits such a wide knowledge of the questions for discussion and all that relates to them, because this knowledge is so well ordered, and because he completely comprehends the subjects in his discussion of them, he is found to be, pre-eminently, a philosophical orator. The effect is two-fold: more than enough is present to convince the mind; his appeal to the passions of his audience is pedantic rather than compelling. An extrinsic factor in his failure to attain immediate success exists in his unfortunate party affiliation.

The text presented for *On American Taxation*, is that of the fourth edition; for *On Conciliation*, that of the second; and for the *Letter*, that of the third (collated with the first and second). The notes are designed not merely to clarify references, but to bring Burke's work into relation with the state of affairs and of controversy to which their author adapted himself.

An Analysis of Speeches in Presidential Campaigns from 1884 to 1920. By Donald Hayworth. Abstract of a thesis presented at the University of Wisconsin for the degree of Doctor of Philosophy, 1929. (See QUARTERLY JOURNAL OF SPEECH, XVI. 35-42, February, 1930.)

An Experimental Study of Individual Vocal Quality. By F. L. D. Holmes. Abstract of a thesis presented at the University of Wisconsin for the degree of Doctor of Philosophy, 1929. See article in this issue.

Richard Whately's "Elements of Rhetoric": an Edition, with Notes and an Introduction. By W. M. Parrish. Abstract of a dis-

sertation persented at Cornell University for the degree of Doctor of Philosophy, 1929. (See QUARTERLY JOURNAL OF SPEECH, XV. 57-79, February, 1929.)

English Theories of Public Address, 1530-1828. By W. P. Sandford. Abstract of a dissertation presented at Ohio State University for the degree of Doctor of Philosophy, 1929.

In this survey, the problem is to trace the evolution of English theories of effective Public Speaking from 1530, the date of Leonard Cox's *Arte or Crafte of Rhethoryke*, the first English rhetoric in the vernacular, to 1828, the date of Richard Whately's *Elements of Rhetoric*.

The study is based mainly on a first-hand examination of about one hundred fifty books on rhetoric, oratory, and elocution written by Englishmen or used extensively in England. Their contents are compared with the five-fold theory of classical rhetoric, set forth by Aristotle, Cicero, Quintilian, and others, consisting of the division of the subject into invention, disposition, style, memory, and delivery, and the agreement with, or deviation from, classical doctrines is noted. The rise and fall of various theories of effective speaking, and the influence of continental rhetoricians and of literary critics, are considered in detail.

The following conclusions seems justified from the evidence: (1) the predominant, though by no means always the most important, influence on English theories of public address has been classical rhetoric; (2) the rhetoric of the "second sophistic," with its emphasis on the use of stock declamations, was influential during the sixteenth and seventeenth centuries, particularly in the grammar schools; (3) the rhetoric of stylistic ornamentation, which enjoyed its greatest vogue in the closing decades of the sixteenth century, flourished until *circa* 1660, but thereafter was of relatively small importance; (4) the elocutionary movement, which, unlike all other systems of instruction, devoted primary attention to oral delivery, enjoyed an enormous popularity from *circa* 1760 on. It, and classical rhetoric, have been the greatest influences on the modern teaching of Public Speaking.

MASTER'S THESES

PHYSICS, PHYSIOLOGY, PSYCHOLOGY

Bryant, Douglas. A laboratory study of the intensity factor in the speaking voice. Northwestern, 1929.

Capel, R. B. A statistical study of aesthetic judgment in the field of speech. Wisconsin, 1929.

Carrell, J. A. An experimental study of some motor traits involved in speech. Northwestern, 1929.

Corley, Mary E. The identification of various emotional qualities in the oral reading of foreign language. Wisconsin, 1927.

Johnston, Audrey. An experimental investigation of the causes of monotony of voice. Northwestern, 1929.

Joslyn, Jean. Studies in perceptibility of speech sounds. Wisconsin, 1929.

O'Connell, W. V. The psychology and pedagogy of visible action in speech. Wisconsin, 1927.

Simley, Anne. A study of Norwegian dialect in American speech. Wisconsin, 1929.

Utzinger, V. A. Lip movemnts in speech. Northwestern, 1929.

Weiss, N. J. Use of four standard psychological tests in the diagnosis and treatment of stuttering. Wisconsin, 1927.

Wilke, Walter. A physiologic analysis of personality. Wisconsin, 1929.

RHETORIC AND PUBLIC SPEAKING

Barnard, R. H. Control of hostile audiences in the anti-slavery speeches of Wendell Phillips. Wisconsin, 1929.

Bradley, H. A. Structure in some of the speeches of Webster. Cornell, 1927.

Casteel, John. Allusions to English literature in the speeches of Wendell Phillips. Northwestern, 1929.

Champ, Beulah G. Comparative study of the content of magazine articles and winning Northern Oratorical League orations. Northwestern, 1928.

Harding, H. F. Burke's Leading Ideas. Cornell, 1929.

Hettinger, Esther L. A study of the treatment of speech purposes by writers on rhetoric. Wisconsin, 1927.

Howell, W. S. A translation, with introduction and notes, of Alcuin's *Disputatio de Rhetorica et Virtutibus*. Cornell, 1928.

Jenks, Elizabeth M. Burke's Critics. Cornell, 1929.

Mattis, N. W. Structure in some of the sermons of Dr. Robert South. Cornell, 1929.

Quinlan, Geraldine E. Burke's speech on American taxation. Cornell, 1929.

DRAMATICS AND READING

Bartlett, Ellen E. Modern tragedy compared with the theories and practices of other periods. Northwestern, 1929.

Berry, Franc. The materials which excite tragic emotions as they are found in Greek tragedy. Northwestern, 1928.

Bloxom, Carlisle. Influence of Nietzsche upon Shaw. Northwestern, 1928.

Bradley, Catherine. Costumes and costuming in the interpretation of drama. Ohio Wesleyan, 1929.

Brown, Constance C. A translation, with introduction and notes, of Georg Fuchs's *Die Revolution des Theatre*. Cornell, 1929.

Carr, Virginia W. Diderot's theory of the theatre. Cornell, 1928.

Dean, Lilly A. *The Dilemma*—a three-act play. Wisconsin, 1929.

Dunham, R. R. Stages and stage devices of the middle ages in France and Italy. Cornell, 1929.

Eagan, Frances P. Gordon Craig's theories of dramatic production. Cornell, 1929.

Farnsworth, Dean. Methods of scene building and scene painting, with special reference to the little theatre. Northwestern, 1929.

Frierson, Annie. *Quagmire*—a tragedy. Northwestern, 1929.

Goepp, Elizabeth. Moliere's theatre and drama. Cornell, 1929.

Hansen, Vaugn. Life and works of Martinez Sierra. Northwestern, 1929.

Hatch, Emily G. The Indian theatre: origin, development, and future possibilities. Cornell, 1928.

Henrich, Royla. English actresses of the eighteenth century. Wisconsin, 1929.

Hewitt, B. H. Victor Hugo's dramatic theory, his plays and their production. Cornell, 1929.

Jenkins, Lucile. Development of folk drama in America. Northwestern, 1929.

Kuehne, Catherine D. Reading abridgments of contemporary novels. Wisconsin, 1929.

Mallory, L. A. An experiment in play-writing. Wisconsin, 1929.

Martin, D. T. Social backgrounds and implications of community drama. Cornell, 1928.

McCononchie, Florence. A director's handbook of *Midsummer Night's Dream*, with an original unit setting satisfactory for any Shakespearian play. Northwestern, 1929.

Mendenhall, L. C. The Pulitzer Prize plays: their content as it meets the conditions of the award. Wisconsin, 1929.

Mills, Joye. A study of the variation of the types of comic characters found in drama from the Greek period through the eighteenth century. Northwestern, 1928.

Moore, A. U. A translation of Adolph Appia's *Die Musik und die Inscenierung*. Cornell, 1929.

Morris, Olive C. The Negro in the American theatre. Wisconsin, 1929.

Parker, Eleanor. History of the dramatic mask. Northwestern, 1928.

Parlette, J. W. A review of literary and dramatic criticism bearing on the stage. Cornell, 1929.

Roach, Dora I. Ruskin's art principles applied to dramatic interpretation. Wisconsin, 1928.

Rose, F. H. History of stage lighting. Ohio Wesleyan, 1929.

Savidge, Myrtle E. Essential qualities of the actor. Wisconsin, 1928.

Schwartz, Theodore. Theatrical theory and practice of Henry Irving. Cornell, 1929.

Throne, Mildred. Costume in the Greek theatre. Wisconsin, 1929.

Thurber, Marba. A comparison of the technique of modern and Greek tragic drama. Northwestern, 1928.

Walters, Mary J. Edwin Forrest: his life and influence. Wisconsin, 1929.

Waugh, Jennie M. Survey of the trend of the professional theatre in the United States over the last decade. Northwestern, 1929.

Wilhelm, D. L. History of the illumination of the stage from the beginning of the drama to 1890. Northwestern, 1928.

Williams, H. M. Judgment of emotion and dramatic characterization from pictures. Northwestern, 1929.

Wood, Annabel. *Much to Do*—a masque. Wisconsin, 1929.

Zwinggi, Antoinette. Certain aspects of similarity between the Greek dramatists and the plays of Eugene O'Neill. Northwestern, 1929.

PEDAGOGY

Allen, Mabel C. Creative dramatics as a factor in elementary education. Northwestern, 1929.

Bell, Claora. Function of spech training in our system of education. Ohio Wesleyan, 1928.

Berkstresser, Katherine. Mental hygiene through dramatics and interpretative reading. Wisconsin, 1929.

Bjorneby, Gladys J. Place of pantomime in dramatic training, with a suggested course of study. Wisconsin, 1927.

Calvert, Lucile. Comparison of aims and methods in the teaching and production of university dramatics. Northwestern, 1929.

Ewing, W. H. Vividness of imagery in single and multiple reading of familiar and unfamiliar selections. Northwestern, 1929.

Hedde, Wilhelmina G. Survey of high school dramatics in the school systems of cities of population over thirty thousand. Northwestern, 1929.

Krefting, Clara E. Place of speech in the high schools of Minnesota. Wisconsin, 1929.

Kretzman, A. J. C. An analysis and criticism of the text-book theories of of stage direction in educational dramatics. New York University, 1928.

Lahman, C. P. A handbook of debate. Wisconsin, 1929.

Lease, Leroy. History of intercollegiate oratory in the United States. Northwestern, 1929.

Ludlow, Josephine B. Socialization in the junior high school through dramatic activities. New York University, 1928.

Mattern, Grace. Biography of Robert McLean Cumnock. Northwestern, 1929.

Weimar, Leora. Teaching of the drama in Protestant theological seminaries of America. Northwestern, 1929.

Wilcox, Edna B. A teacher's manual for the training in speech of all children in the elementary grades. Wisconsin, 1929.

NEWS AND NOTES

[Please send items for this department—news of personal and departmental interest—direct to Miss Lousene Rousseau, 49 East 33rd Street, New York City.]

Under the auspices of the Whitehouse Conference on the Child Defective in Speech, a conference on speech correction was held at Madison, Wisconsin, March 14 and 15. The program was as follows:

Symposium: The Problem of Special Education. By Dr. Charles S. Berry, Chairman of the Division of Special Classes, Whitehouse Conference on Child Health and Protection.

Address: A Psycho-Mechanistic View of the Human Voice and Its Disorders. Dr. Elmer Kenyon.

The Problem of Stuttering. Dr. Lee Travis, University of Iowa.

The General Usefulness of the Speech Teacher in Handling All Problem Cases. Miss Pauline Camp, Madison Supervisor of Speech Education.

Whitehouse Conference on Child Health Protection Committee on the Child Defective in Speech. Dr. Robert West, University of Wisconsin.

Problems in the State. Miss Lavilla Ward, Wisconsin Supervisor of Special Education.

On March 10th there was held in New York City, in the beautiful new Panhellenic House, the first dinner conference for speech teachers from all parts of Greater New York. The Department of Speech Improvement, of which Mrs. Letitia Raubicheck is chairman, sponsored the meeting. One of the speakers was Miss Henrietta Prentiss, of Hunter College, who discussed the problems of speech education in New York City.

The Platform World, published in Oxford, Ohio, is offering to all teachers a valuable play reading and advisory service without cost. The library of plays available includes only good plays of every possible type. A feature of this service is the Director's Manuscript, prepared by an expert producer and giving all the necessary information for production—scene plots, property lists for each act, outlines of lighting and stage effects, descriptions of costumes, makeup, and many other valuable suggestions for producing the play. As many as five plays will be sent for examination at one time, and they may be kept for two weeks. Upon request to the Educational Department of *The Platform World* a catalogue of plays available will be sent without charge.

Many teachers of speech will be interested to note that the National Council of Teachers of English and the *English Journal* have moved their joint offices, and are now located at 211 West 68th Street, Chicago.

Many items concerning the activities of Departments of Speech have been received recently. They indicate a rapidly expanding program, in many cases more ambitious than have heretofore been reported in these columns.

A two-column article from a Los Angeles paper reviews the history of the School of Speech of the University of Southern California, now under the direction of Dean Ray K. Immel. That department is now composed of ten faculty members, more than one thousand students in undergraduate courses, and thirty-odd graduate students. The most unusual feature of the work of the School of Speech is its close relation with motion picture companies, especially through the medium of the Academy of Motion Picture Arts and Sciences. Several courses are offered dealing with various phases of motion picture production.

At the University of Arizona, where W. Arthur Cable is chairman, March 23 to 29 was observed as Speech Week. Among the events of the week were a Sunday evening open-forum debate broadcast from one of the city churches, on the proposition that modern science tends to destroy theistic faith. A team from the University of Oregon met the Arizona team. The following evening witnessed a debate with the University of California at Los Angeles on the proposition that the nations should adopt a plan of complete disarmament, except for police protection forces. Another event of the week was a lecture by Richard Halliburton, sponsored by the Speech Division of the University cooperating with the University as a whole and the city of Tucson. Three evenings were given over to the Seventh Annual Conference and contests of the Pacific Forensic League, reported later in this department. The following evening, at Casa Grande, ancient Indian ruins, was held the annual Arizona legendary and historical pageant, in which students from the Speech Division participated. Speech Week closed with an open-forum debate between Arizona and the University of Washington on the foreign indictment of American culture.

Oregon State College reports an exceptionally busy year, with thirty-eight girls on the Varsity Debate Squad, thirty-six freshmen on the freshman squad (selected from one-hundred-nineteen aspirants who tried out), and twenty-eight on the Men's Varsity Squad, each of whom will have participated in at least one contest before the end of the season. More than seventy debates were scheduled, with twenty-eight institutions. Contestants have already been sent to the State Old Line and Coast Oratorical Contests, and others will participate in the State Peace Contest and the District Constitutional Contest, the latter to be held at Oregon State College. Dramatic activities have been equally emphasized. The Oregon chapter of National Collegiate Players presented Milne's *The Dover Road;* the Workshop Theatre Players presented *Skidding*, by Rouveral. *Cock Robin*, by Elmer Rice, and Hatcher Hughes' *Hell Bent for Heaven*, as well as the

All Men's Show, both words and music for which were written by students, have been presented. Several one-act plays were also produced. Scenery for all plays was designed and constructed by students in Scene Design and Stage Craft courses, and all except modern costumes were designed and made by Community Drama students.

The Department of Speech of the University of Wisconsin, in cooperation with the University Extension Division, is planning for the third annual Dramatic and Speech Institute, to be held in Madison from June 30 to July 12. Intensive courses in many phases of speech and play production will be offered by a large staff, which includes Professors Troutman, Rockwell, Ewbank, Varnum, and Borchers of Wisconsin, John Muyskens of the University of Michigan, Miss Cloyde Dalzell, Director of Dramatics at Hunter College, and several others.

The Curry School of Expression announces five centers for summer courses: Boston, where two successive terms will be directed by George Currie and Jessie Milsapps; Fort Worth, Texas, in charge of Lew D. Fallis; Asheville, North Carolina, directed by Miss Laura Plonk; Denver, Colorado, with Mrs. Eliza Josephine Harwood in charge; and Milwaukee, Wisconsin, where Mr. George Currie will be in charge. Binney Gunnison, Dean of the school, is general director.

Emerson College of Oratory, at the end of its fiftieth year, next August, will pass into the hands of a board of fifteen trustees. This action was taken to fulfill the wishes of President Southwick, Dean Ross, and Mr. Kenney, who, in order to assure the perpetuation of the school and to speed its establishment as an endowed college, are relinquishing, without recompense, all their financial interest in the Corporation.

More reports of state and sectional meetings of speech teachers have been received within the last few weeks than ever before. This would seem to indicate a rapid extension of local organizations—which should mean increased interest in the activities of the NATIONAL ASSOCIATION OF TEACHERS OF SPEECH.

The Seventh Annual Conference of the Pacific Forensic League was held at the University of Arizona, March 26 to 28. The program was as follows:

Address of Welcome—President Shantz, University of Arizona.
Discussion—Aims of Contest Speaking. Led by W. Arthur Cable, University of Arizona.
"Temporary Insanity Debate"—J. Gordon Emerson, Stanford University.
Seventh Annual Extempore Speaking Contest.
Use of Evidence in Contest Debating—Discussion led by C. B. Mitchell, Oregon State College.
Observations on League Extempore Speaking and Oratorical Contests—Discussion led by Benjamin D. Scott, Pomona College.
Future of League Debates—Discussion led by Charles A. Marsh, University of California at Los Angeles.

Teaching of Forensics—Discussion led by Horace Rahskopf, University of Washington.

Humor in Debate—Discussion led by Ralph C. Hoeber, University of Oregon.

General Forensic Situation in American Universities and Colleges—Stanley B. Houck, National President, Delta Sigma Rho

Sixth Annual Oratorical Contest.

Promoting Women's Forensics—Discussion led by Herbert E. Rahe, Williamette University.

Conducting Women's Forensics—Discussion led by Jasper V. Garland, University of Idaho.

Many special luncheons, dinners, and trips to near-by places of historic or scenic importance were provided for the delegates.

Friday, April 4, was the day of the meeting of the Public Speaking Section of the Ohio College Association. The program included an exhibition Oregon Plan debate between the women of Ohio Wesleyan University and Miami University on the chain store question, to which the National Chain Store Association and the National Independent Retailers Association sent speakers to present their sides of the question. W. Roy Diem, of Ohio Wesleyan University, reported on the speech work of the Ohio secondary schools. Glenn Ross, manager of the Ohio State Debate League, who recently completed a survey of high school debating in every state in the country, spoke on "The Aims of High School Debating." There was also an informal round-table discussion of problems in teaching the oral interpretation course.

Miss Rose B. Johnson of Birmingham reports that the Alabama Teachers of Speech organized a State Association during the convention of the Alabama Educational Association at Montgomery, April 10-12.

At a meeting held in Birmingham, Alabama, March 19, the first step was taken toward the organization of a Southern Association of Teachers of Speech. Edwin H. Paget, North Carolina State College, was elected chairman of the temporary executive committee; and T. Earle Johnson, University of Alabama, temporary secretary-treasurer. Miss Rose Johnson, Woodlawn High School, Birmingham, Alabama, was appointed to make a canvass of secondary school teachers. The first convention was planned for early in May. Membership in the new Association will be open to all teachers of speech in Maryland, West Virginia, Virginia, Tennessee, Kentucky, Misouri, Oklahoma, Texas, Arkansas, Louisiana, Mississippi, Alabama, Georgia, North Carolina, South Carolina, Florida, and the District of Columbia. The tentative plan of membership will make members of the Southern Association also members of the NATIONAL ASSOCIATION. Members of the executive committee are C. M. Wise, Louisiana State University; Ira G. Morrison, Missouri Central College; O. W. Rush, State Teachers College, Alva, Oklahoma; W. R. Sutherland, University of Kentucky; Vera Alice Paul, Georgia State Teachers College; L. M. Cox, McLin School of Expression, Birmingham; Annie L. Boyette, Howard College; Ellen Gould and Helen Osband, Alabama College; Wilhelmina G.

Hedde, Sunset High School, Dallas; A. M. Moser, University of Tennessee; Frances Gooch, Agnes Scott College; Marvin G. Bauer, Washington and Lee University; Virgil Baker, University of Arkansas; Mrs. Earle G. McLin, Birmingham Southern College; Frances D. Johnson, Paul Hayne High School, Birmingham; and E. Turner Stump, Marshall College.

The first meeting of the Department of Speech of the Oregon State Teachers Association was held December 27th and 28th in Portland, with Earl W. Wells, Oregon State College, who was instrumental in organizing the department, presiding. Miss Etha Oglesby, director of public speaking and dramatics, Forest Grove High School, served as secretary. The program was chiefly concerned with contest speaking in grade and high schools and the organization of speech work in the public schools. College and high school teachers of speech throughout the state participated in the program. One of the most important actions taken was the appointment of a committee of five to formulate a syllabus of high school courses in speech to be circulated among the high schools of the state.

The Eastern Public Speaking Conference held its twenty-first annual meeting and twentieth Anniversary Celebration at Princeton University April 25 and 26. Hoyt Hudson, Princeton University, is chairman of the Conference; Miss Sara M. Stinchfield of Mount Holyoke College, is secretary; and J. Walter Reeves, Peddie School, Hightstown, New Jersey, is vice-chairman in charge of secondary school sections. The complete program was as follows:

FRIDAY, APRIL 25

10:30 A. M. Call to Order.

Greeting, PROFESSOR EDWIN GRANT CONKLIN, Princeton University

Trends in Speech Education, RUPERT L. CORTRIGHT, Syracuse University

The Country Theatre, MARY EVA DUTHIE, New York State College of Agriculture, Cornell University

Methods of Acting of the Moscow Art Theatre, LEO BULGAKOV, New York City

1:30 P. M. Sectional Meetings

SPEECH PROBLEMS, C. K. THOMAS, Cornell University, Chairman

Psychological Effects of Blindness indicated by some Types of Speech Disorders, Sina V. Fladeland, Perkins Institution, Watertown, Massachusetts

Phonetics and Standard Pronunciation, Jane B. Taylor, Hunter College

Psychosynthesis in the Treatment of Stutterers, Frederick W. Brown, National Committee for Mental Hygiene, New York

"Oh, Wad Some Power . . . ", Dorothy Kaucher, Wells College

DRAMATICS, MARY THORNTON HARVEY, Hunter College, Chairman.

The Production of Original Plays in College, W. Northrop Morse, Tufts College
Adventures in the Theatre, Cleon Throckmorton, New York City
Emotion and its Physical Expression, Arthur L. Woehl, Hunter College
A Laugh Analysis of *The School for Scandal*, John Dolman, Jr., University of Pennsylvania

3:15 P. M. Sectional Meetings
PUBLIC SPEAKING AND DEBATE, R. H. WAGNER, Cornell University, Chairman.
Woodrow Wilson as a Debate Coach, Dayton McKean, Princeton University
Public Speaking at the Capitol, W. H. Yeager, George Washington University
Present-Day Oratorical Contests in Schools and Colleges, Arleigh B. Williamson, New York University
Debate for Law Students, Raymond F. Allen, Albany Law College
Organizing for Better Debating, Lawrence A. Appley, Colgate University
READING, AZUBAH J. LATHAM, Teachers College, Columbia University, Chairman.
Fidelity to Rhythm and Pattern:
In reading modern verse, Professor Allan Abbott, Columbia University
In coaching Shakespeare's plays, Alfred Young, Formerly of the Academy of Dramatic Art
As taught in England, Olivia Hobgood, Wellesley College
In reading Scottish dialect, Anne G. McIntosh, Hunter College High School
In reading Negro dialect, Miss R. C. Walker, North Texas State Teachers College
Illustrative Readings and Discussion

7:00 P. M. Twentieth Anniversary Dinner.
JAMES ALBERT WINANS, Dartmouth College, presiding
Speakers: HON. FRANKLIN W. FORT, Member of Congress from New Jersey
PAUL M. PEARSON, Founder of Eastern Public Speaking Conference

9:30 P. M. Visit to the McCarter Theatre
under the direction of PROFESSOR DONALD CLIVE STUART, Princeton University

SATURDAY, APRIL 26

9:30 A. M. Meeting of Teachers in Secondary Schools
J. WALTER REEVES, The Peddie School, Chairman

Speech Defects, Letitia Raubicheck, Director of Speech Improvement, New York City
Methods in Coaching Dramatics, Robert S. Illingsworth, Headmaster, The Swavely School
Extemporaneous Speaking, Newton B. Hammond, Yonkers High School
The Binghamton Course in Speech, Walter C. Roberts, Binghamton High School

10:00 A. M. Meeting of College Teachers
VERA A. SICKELS, Smith College, presiding.
The Teaching of Public Speaking in the South, Marvin Bauer, Washington and Lee University
Building up Debate, Richard C. Reager, Rutgers University
The Criticism of Oratory, Donald C. Bryant, New York State College for Teachers
The Bible in Interpretative Reading, Everett L. Hunt, Swarthmore College

11:30 A. M. General Session.
Orators and Oratory in Shakespeare, PRESIDENT HENRY L. SOUTHWICK, Emerson College of Oratory

12:30 P.M. Business Session.

At the same time, in Michigan, the Public Speaking Conference, on the occasion of the annual Michigan Schoolmasters Club, held a meeting in Ann Arbor. The occasion also celebrated the thirteenth annual state debate of the Michigan State Interscholastic Debating League. The chief speaker at the Public Speaking Conference was Howard Woodward, former president of the NATIONAL ASSOCIATION OF TEACHERS OF SPEECH, and chairman of the Speech Department of Western Reserve University.

Rivalled only by the news from sectional associations this month is the news of contests in various types of speech activities. Readers of this department will agree with the editor of the section that teachers of speech have enjoyed an exceptionally active year.

On March 7th and 8th the West Virginia Intercollegiate Forensic Association held its seventh annual oratorical contest and its first annual one act play contest, the Fairmont State Normal School acting as hosts. A number of judges served for the oratorical contest, but Chester Wallace, Carnegie Institute of Technology, served as the single judge of the play contest. The plays entered were Barrie's *The Twelve-Pound Look*, presented by the Concord State Normal School; O'Neill's *Ile*, presented by the Fairmont State Normal; *The Valiant*, by Hall and Middlemas, presented by West Virginia Wesleyan University; *The Boor*, by Tchekoff, produced by the players from the Glenville State Normal; *Londonderry Air*, by Rachel Field, the production of Davis Elkins College; and Percival Wilde's *Dawn*, presented by Marshall College.

April 11th and 12th witnessed the second annual conference of the Arizona Junior College Speech Arts League, held at the Tempe State

Teachers College. At that time freshman and sophomore men and women from the State Teachers Colleges at Flagstaff and Tempe, Phoenix Junior College, Gila College, and the University of Arizona participated in contests in extemporaneous speaking, peace oratory, and interpretative reading. The debate tournament of the League was held last December.

Sponsored by the Oregon State College chapters of Delta Sigma Rho and National Collegiate Players, and supervised by the college department of Public Speaking and Dramatics, the second contest of the Oregon High School Extempore Speaking and Interpretation League was held at Corvallis the last of April.

The Annual Inter-State Oratorical Contest was held at Evanston, Illinois on April 25th and the annual Northern Oratorical League contest, in the same place, one week later.

The final debate of the Wisconsin High School Forensic Association was held late in March at Madison, under the auspices of the University of Wisconsin. The State Championship was won by the Mayville High School teams, coached by Arnold Melzer. The other contests sponsored by the Association—in declamation, oratory, extemporaneous reading, and extemporaneous speaking—were held on the week-end of the 22nd and 23rd of May. 356 high schools were members of the Wisconsin league in 1929-1930.

Pi Kappa Delta, national intercollegiate forensic fraternity, held its 1930 contest at Wichita, Kansas, March 31st to April 4th. More than one thousand delegates attended the convention, and many of them were entered in the various contests in debating and oratory.

Under the direction of W. Palmer Smith, Boys High School in Brooklyn held its seventy-third semi-annual declamation contest on the evening of May tenth. This is one of the oldest contests ever reported in these columns.

A contest of an entirely different nature, which is likewise an annual affair, is the Poetry Reading Contest at Hunter College High School, New York City, held early in March. On this occasion the students, each the winner in an elimination contest, read contemporary poetry. Attendance is always large and the contest has created a great deal of interest. Miss Mary E. Cramer, chairman of the Speech Department of Hunter College High School, is in charge of the activity.

Probably the most interesting attempt to increase interest in debating ever reported here is that which occurred recently in Wausau, Wisconsin, in a debate between the junior and senior classes. The question for debate was based on installment buying. The juniors opened the program with original words set to a popular tune, admonishing the seniors

"If you would pay your cash
For everything you buy
You'd never have to sit and cry."

The seniors replied with similar original words to another popular song. Then the juniors presented a one-act play depicting the disastrous consequences of over-buying on the installment plan, and the seniors re-

plied with an original playlet depicting the opposite effect. "We ain't got much, but what we got we own." More original songs followed, and then came the debate. The large audience was intensely interested, because of the original program which had preceded. The critic judge, Mr. Bruno Jacob, was secured from Ripon, 125 miles away. Nicholas Yaworski planned the debate and prepared the debaters.

DRAMATICS

An interesting attempt to motivate art through dramatics is reported from Newark, New Jersey, where four complete original playlets were presented by the schools in which they were written. In *A Color Play* the colors and color harmonies were represented, largely through the dance, and the costumes were designed and made by the students. In the second play, *A Design Dream*, Johnny, who sees no sense to the designs he has to make in school, dreams he sees design applied in every day life. In *Design Principles*, an artist with paper and charcoal illustrated graphically principles of art. In the fourth play, *A Part for Bud*, the theme that beauty is vital for everyone all the time was stressed.

More information has been received about the new theatre at Ohio Wesleyan, whose opening performance, *East Lynne*, was mentioned here in the April issue. This new dramatic laboratory is really an old theatre, built in 1879, but closed during the last ten years because of needed repairs. The repairs having been completed, the college has leased the theatre for ten years, thereby gaining a stage 37 ft. wide by 24 ft. deep, with a grid capable of carrying more than forty sets of lines, 42 feet above the stage floor, and an auditorium seating 940. There is also a scene dock and paint room, two auxiliary storage rooms, seven well-equipped dressing rooms, a green room, and two class rooms. The lighting lay-out is unusually flexible, and includes more than fifty outlets for stage use. In connection with the opening the University sponsored a two-day conference on Drama and the Theatre Arts in Schools and Colleges, which was attended by about one hundred high school and college teachers. Among the speakers were John Dolman, Jr., University of Pennsylvania; Dr. Clarence Stratton, director of English in the Cleveland public schools; Harold Ehresnperger, Little Theatre Editor of *The Drama;* and Frederic McConnell, director of the Cleveland Playhouse. Besides *East Lynne*, productions of the first season included Sutton Vane's *Outward Bound*, *The Royal Family*, and *A Mid-Summer Night's Dream*. R. C. Hunter directed the productions, assisted by Miss Hortense Moore.

The first annual Mississippi State Dramatic Art Tournament was held at Whitfield Auditorium, Columbus, April 3rd, 4th, and 5th. Participating groups were as follows: Mississippi Synodical College, *The Florist Shop*, by Winifred Hawkridge; Mississippi State College for Women, *The Conflict*, by Clarice McCauley; Grenada College, *Mansions*, by Hildegarde Flanner; Mississippi College, *The Monkey's Paw*, by W. W. Jacobs; Hind's Junior College, *The Valiant*, by Hall and Middlemass; A. & M. College, Dunsany's *Night at an Inn;* Whitworth College, *Will o' the Wisp*, by Doris Holman; and Mississippi Woman's College, *Synge's Riders*

to the Sea. Among the many cups awarded to the prize-winners were those donated by Walter H. Baker Publishing Company, D. Appleton, Row-Peterson, and Samuel French. The H. C. Miner Make-Up Kit was awarded to the best made-up group in the tournament.

The Boar's Head Dramatic Society of Syracuse University presented *Martine*, by J. J. Bernard and O'Neill's *The Great God Brown*, during the winter.

The Dakota Playmakers recently presented Ibsen's *A Doll's House*, under the direction of E. D. Schonberger. The last production of the year was *The Clean-Up*, by Barry Conners. In addition to these major productions, ninety-two students of the university were cast in sixteen one-act plays.

An interesting production of Milne's *The Ivory Door* was given recently at Hunter College, under the direction of Miss Cloyde Dalzell.

Recent dramatic productions at De Pauw University included *The Eldest*, by Edna Ferber, presented before an all-university convocation, and Austin Strong's *Seventh Heaven*, the latter directed by Harry B. Gough and Miss Claora Elizabeth Bell.

The annual play of the juniors at the Leland Powers School was Edward Knoblock's *My Lady's Dress*, which was presented early in February.

Under the direction of Carlyn R. Winger, Pacific University recently presented Sutton Vane's *Outward Bound*.

PERSONALS

Everett Hunt recently sang the title role in the Swarthmore performances of Rimsky-Korsakoff's *Sadko*. This opera was produced this year for the first time in America by the Metropolitan Opera Company of New York. The Swarthmore College productions were the first to be sung in English. Last year Mr. Hunt was leading tenor in several performances of Vaughan Williams' *Hugh the Drover*. This spring he has been presenting Shakespearean songs in lecture-recital in Philadelphia and vicinity. In the first term of the summer quarter Mr. Hunt will offer a course in the backgrounds of speech training at the University of Colorado.

John Dolman, Jr., of the University of Pensylvania, has likewise distinguished himself in the realm of acting, in the faculty production of *The School for Scandal*.

H. L. Ewbank is chairman of a committee recently appointed at the University of Wisconsin which is conducting an elaborate experiment in radio education over the University of Wisconsin station, WHA. More than 1500 children in Dane County will listen to radio lessons in music and current events.

Edwin Duerr has resigned from his position at the University of Nevada, where he was director of dramatics, and plans to pursue studies leading to the Ph. D. Degree in drama and rhetoric at Cornell University.

R. K. Immel, whose work as Dean of the School of Speech at the University of Southern California has been mentioned earlier in these columns, will conduct courses in phonetics and linguistics at the Univer-

sity of Michigan this summer. Dr. Muyskens, who usually offers these courses, will be at the University of Wisconsin for the summer session.

Clarence Dammon, Purdue University, has been asked by State Superintendent Roy P. Wisehart to undertake a study of the status of speech training in Indiana, including the extent of speech work, enrollment, credit, number and variety of courses, status of curricular and extra-curricular work, texts used, and qualifications of teachers.

Dr. G. S. Greene, assistant professor of English at the University of Pittsburgh, will go to Iowa State College next fall as head of the Department of Public Speaking. Miss Frederica Shattuck has resigned the chairmanship of the department to devote her full time to teaching.

A. B. Williamson, New York University, will offer a course in play production in the summer school program at Chatauqua, New York.

D. T. Burns, Baldwin-Wallace College, recently broadcast a series of lectures on the importance of speech training over WTAM of Cleveland. It is reported that one mother was so impressed that she consented to allow her daughter to major in spech—a request hitherto denied!

Miss Lou Kennedy who, for the past three years has been a graduate student and clinic assistant in Speech Pathology at the University of Wisconsin has accepted an assistant professorship at the University of Minnesota for the year 1930-31. Miss Kennedy will offer courses in Speech Pathology and Phonetics and will have charge of the Speech Clinic during Professor Bryngelson's leave of absence. Miss Kennedy is to receive her Ph. D. degree from Wisconsin in June.

Carl Taylor, formerly of Southwestern College and the University of Oklahoma, has spent the current year in graduate study at the University of Wisconsin and has just been appointed to an assistant professorship of speech at the Milwaukee Center (Junior College) of the University Extension Division. Mr. Taylor will offer day courses paralleling those open to sophomores at Madison and will also teach adult groups in the evening.

Mrs. Mildred Freburg Berry who for several years had been in charge of the department of speech in Rockford College has been granted a year's leave of absence which she will spend in graduate study at the University of Wisconsin where she has been elected to the Harriet Remington Laird Fellowship for 1930-31.

IN MEMORIAM

FREDRIC MASON BLANCHARD
1867-1929

Of that group of good workers who for approximately a quarter of a century maintained the best standards of the time in the teaching of the speech arts at the University of Chicago, Professor Blanchard is the third to pass to the great beyond. The first two to go were Professor Solomon

H. Clark and Professor William P. Gorsuch, who later occupied the chair of Public Speaking at the University of Washington.

Professor Blanchard was a teacher possessed of the highest professional ideals. He entered the field of the teaching of public speaking shortly after the revolt from the so-called "elocutionary" standards in vogue before the early nineties. With Professor Clark he published one of the early books upholding the newer standards, namely, *Practical Public Speaking*. Many will remember that useful book, with its insistence upon directness, naturalness, and freedom from the art of the *poseur* in both the mental and physical attitudes of the speaker.

In the class-room Professor Blanchard's manner was always characterized by perfect confidence and a pervading atmosphere of glowing enthusiasm and good humor. His classes always manifested that "ripple of good feeling" that is likely to characterize really good teaching. All his students loved him and look back to their triumphs in his classroom as the source of many a lively inspiration in later life.

Possessed of a rich, resonant voice, and a relaxing smile, Professor Blanchard brought a mellowing influence to every conference to which he came. He probably had not an enemy in the world. He was an accomplished musician, being the leader of the University of Chicago Band for many years, and later returning to his early love for the 'cello, which he played with skill and delight. Wise in his early investments, he achieved a fortune in his later years. He came to California where for a brief time he taught in the University of California at Berkeley, later retiring from the active work of teaching and living quietly and artistically in a charming villa overlooking the shores of beautiful Monterey Bay and the age-old breakers of the Pacific.

To some within our ranks it is given to do things that put or keep them in the professional limelight. Too often we forget those of milder temper who, free from prejudice or partisanship, with a superlative skill aid in passing on from generation to generation the best traditions of public speech. Professor Blanchard was one of these, and no better fortune could come to any member of the profession than that as the evening sun of life lowers to meet the horizon his days should be like those of Professor Blanchard.

D. E. W. AND E. Z. R.

FLOYD S. MUCKEY
1856-1929

Dr. Floyd Sumner Muckey who died on February 28 last, at his residence, 25 West 94th Street, New York City, was one of the earliest pioneers in the movement for better speech in America and one whose scientific work seems destined to grow in importance as the teachers and investigators in the field of speech go more and more deeply into the fundamentals of their subject.

Born in 1856 at Medford, Minnesota, he attended the normal school at Winona and taught school for a short period. Later he went to the

University of Minnesota and finally received his degrees M. D.; and C. M. from McGill University at Montreal, Canada.

At McGill he specialized in the courses conducted by Dr. Frank Shepard, one of the finest anatomists of his time, and Sir William Osler the preeminent physiologist. During the years 1884 and 1885 he took a course under the distinguished Sajous at the University of Pennsylvania and did special nose and throat work under Dr. Cohen of Philadelphia.

After a year of general practice in St. Paul he moved to Minneapolis where during a period of nine years he became known as one of the leading throat specialists.

The above suggests the unusually fine background in anatomy, physiology, and practical experience (the really indispensable equipment) which was Dr. Muckey's when he came to New York in 1893. Here he was fortunate in securing the collaboration of the late Professor William Hallock of the department of physics at Columbia University,—one of the ablest acousticians of all time.

Together they labored with utter devotion and through the long period of eighteen years on what is, no doubt, one of the most significant investigation of the voice mechanism that has ever been made. They were later embodied in Dr. Muckey's excellent book "The Natural Method of Voice Production."

Professor Hallock and Dr. Muckey analyzed the voice in such a manner as to establish definitely the constitution of a tone of beautiful quality, as compared with one of bad quality. They were among the first to photograph satisfactorily, the vocal cords in action and to study the physiological conditions governing the production of tones of good or bad quality; also to contend that pitch changes in the voice are the effect of changes in the length, weight, and tension of the vocal cords. He also redefined noise as a sound composed of many different frequencies very close together, consequently very dissonant—departing from the Helmholtz theory of irregular vibration.

These definitions merit serious consideration by any one who aspires to work intelligently toward an improved quality in human speech.

To attempt even so modest a resume or outline of Dr. Muckey's career as is the present offering is to be struck by two note-worthy facts. The first is the discrimination and thoroughness with which he fitted himself for his work. The second is that his work itself is an outstanding piece of scientific pioneering.

A. O'B.